

Mathematics Calendar

The most comprehensive and up-to-date Mathematics Calendar information is available on e-MATH at <http://www.ams.org/mathcal/>.

June 1999

1-3 **International Conference on Differential Equations and Related Topics**, Pusan National University, Pusan, Korea. (Jan. 1999, p. 66)

1-4 **Day on Diffraction'99**, St. Petersburg Branch of Steklov Mathematical Institute, St. Petersburg, Russia. (Nov. 1998, p. 1377)

2-4 **Joint DIMACS-DIMATIA Workshop on Algebraic Methods and Arithmetic Circuits**, DIMACS Center, Rutgers University, Piscataway, New Jersey. (Mar. 1999, p. 374)

3-5 **Applications of Heavy Tailed Distributions in Economics, Engineering and Statistics**, American University, Washington, DC. (Jan. 1999, p. 66)

4-9 **Geometry, Analysis, and Mathematical Physics: Analysis and Geometry**, Obernai (near Strasbourg), France. (May 1999, p. 587)

4-9 **Geometry, Analysis & Mathematical Physics: Analysis & Geometry**, Obernai (near Strasbourg), France. (Jan. 1999, p. 66)

6-12 **International Conference on Rational Approximation (ICRA99)**, University of Antwerp, Antwerp, Belgium. (May 1999, p. 587)

6-19 **Second Summer School of Mathe-**

matical Biology, Termoli, Italy. (Feb. 1999, p. 276)

7-9 **Canadian Operational Research Society Conference (CORS '99)**, Windsor, Ontario, Canada. (May 1999, p. 587)

7-9 **Theoretical, Experimental & Computational Mechanics**, Cincinnati, Ohio. (Oct. 1998, p. 1230)

7-11 **11th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC'99)**, Universitat Politècnica de Catalunya, Barcelona, Spain. (Feb. 1999, p. 276)

7-11 **From Individual to Aggregation: Modeling Animal Grouping**, University of Minnesota, Minneapolis, Minnesota. (Jun/Jul. 1998, p. 760)

7-11 **International Society of The Arts, Mathematics, and Architecture (ISAMA99)**, San Sebastian, Spain. (Jan. 1999, p. 67)

7-11 **Random Matrices and Their Applications: Quantum Chaos, GUE Conjecture for Zeros of Zeta Functions, Combinatorics, and All That**, Mathematical Sciences Research Institute, Berkeley, California. (Jun/Jul. 1998, p. 760)

* 7-11 **Second IMACS Conference on Monte Carlo Methods**, Varna, Bulgaria.

Aim: The purpose of the seminar is to pro-

vide a forum for the presentation of recent advances in the analysis, implementation, and applications of Monte Carlo simulation techniques and, in particular, to stimulate the exchange of information between specialists in these areas.

Topics: The topics should cover both theoretical developments (random numbers, quasi-MC methods, numerical MC methods, statistical analysis, variance reduction, perturbation techniques, MC error analysis) and application fields (particle transport, reliability analysis, quantum mechanics, statistical physics, stimulation of random processes and fields).

Information: <http://www.acad.bg/BulRTD/math/dimov2.html> or e-mail I. Dimov at dimov@copern.bas.bg.

10-12 **1999 International Conference on Preconditioning Techniques for Large Sparse Matrix Problems in Industrial Applications**, University of Minnesota, Hubert H. Humphrey Institute, Minneapolis, Minnesota. (Nov. 1998, p. 1378)

11-12 **Mathematical Physics and Quantum Field Theory**, University of California, Berkeley, California. (May 1999, p. 587)

11-13 **20th Annual Meeting of the Canadian Applied and Industrial Mathematical Society (CAIMS-99)**, Université Laval, Que-

This section contains announcements of meetings and conferences of interest to some segment of the mathematical public, including ad hoc, local, or regional meetings, and meetings and symposia devoted to specialized topics, as well as announcements of regularly scheduled meetings of national or international mathematical organizations. A complete list of meetings of the Society can be found on the last page of each issue.

An announcement will be published in the *Notices* if it contains a call for papers and specifies the place, date, subject (when applicable), and the speakers; a second announcement will be published only if there are changes or necessary additional information. Once an announcement has appeared, the event will be briefly noted in every third issue until it has been held and a reference will be given in parentheses to the month, year, and page of the issue in which the complete information appeared. Asterisks (*) mark those announcements containing new or revised information.

In general, announcements of meetings and conferences held in North America carry only the date, title of meeting, place of meeting, names of speakers (or sometimes a general statement on the program), deadlines for abstracts or contributed papers, and source of further information. Meetings held outside the North American area may carry more detailed information. In any case, if there is any application deadline with respect to participation in the meeting, this fact should be noted. All communications on meetings and conferences in the mathematical sciences

should be sent to the Editor of the *Notices* in care of the American Mathematical Society in Providence or electronically to notices@ams.org or mathcal@ams.org.

In order to allow participants to arrange their travel plans, organizers of meetings are urged to submit information for these listings early enough to allow them to appear in more than one issue of the *Notices* prior to the meeting in question. To achieve this, listings should be received in Providence **six months** prior to the scheduled date of the meeting.

The complete listing of the Mathematics Calendar will be published only in the September issue of the *Notices*. The March, June, and December issues will include, along with new announcements, references to any previously announced meetings and conferences occurring within the twelve-month period following the month of those issues. New information about meetings and conferences that will occur later than the twelve-month period will be announced once in full and will not be repeated until the date of the conference or meeting falls within the twelve-month period.

The Mathematics Calendar, as well as Meetings and Conferences of the AMS, is now available electronically through e-MATH on the World Wide Web. To access e-MATH, use the URL: <http://e-math.ams.org/> (or <http://www.ams.org/>). (For those with VT100-type terminals or for those without WWW browsing software, connect to e-MATH via Telnet (<telnet> e-math.ams.org; login and password e-math) and use the Lynx option from the main menu.)

- bec, Canada. (Apr. 1999, p. 483)
- * 11-13 **Rigidity, Fundamental Groups and Dynamics, in the Vein of M. Gromov and G. A. Margulis**, Institut de Recherche Mathématique Avancée de Strasbourg, France. **Organizer:** P. Foulon. **Sponsors:** SMF, CNRS, formation permanente du CNRS—Delegation Alsace, DRA1, Univ. Louis Pasteur et IRMA. **Lecturers:** M. Babillot (Univ. de Paris 6), R. Feres (Univ. de Washington), F. Labourie (Univ. de Paris Sud), A. Zeghib (ENS, Lyon). **Information and Registration:** <http://www-irma.u-strasbg.fr/irma/>.
- 13-17 **Conference on The Mathematics of Public-Key Cryptography**, The Fields Institute, Toronto, Ontario, Canada. (Sept. 1998, p. 1051)
- 13-17 **Computability Theory and Applications (Joint Summer Research Conference Series)**, University of Colorado, Boulder, Colorado. (Mar. 1999, p. 374)
- 13-17 **From Manifolds to Singular Varieties (Joint Summer Research Conference Series)**, University of Colorado, Boulder, Colorado. (Mar. 1999, p. 374)
- * 13-18 **The International Conference on Differential Equations and Computational Simulations**, Chengdu, People's Republic of China. **Focus:** This conference will focus on nonlinear dynamics and computational simulation with applications to models in electronic circuits, advanced materials, nonlinear waves, fluid flow, nonlinear optics, networks of neurons, genetics, physiology, and related fields. **Scientific Committee:** P. W. Bates (USA), S.-N. Chow (cochair, USA), B. Guo (China), C. Li (cochair, USA), J. M. Paret (USA), Z. F. Zhang (China). **Organizing Committee:** D. Bai (China), Z. Han (China), Y. Liu (chair, China), K. Lu (USA), Z. Lu (China), D. Xu (cochair, China), W. Zhang (China). **Information:** Details of the conference are available on the Web page <http://www.math.byu.edu/~klu/conference/>. For further information, please contact D. Xu or W. Zhang, Department of Mathematics, Sichuan Univ., Chengdu 610064, China; e-mail: nic2601@scuu.edu.cn (with subject "Daoyi Xu & Weinian Zhang") or dxyu@pridns.scuu.edu.cn.
- * 14-18 **Householder Symposium XIV, 1999**, Chateau Whistler, Whistler, British Columbia. **Sponsors:** The Math Works, Inc., Univ. of British Columbia, Univ. of Waterloo, Pacific Institute of Mathematical Sciences, Boeing Company. **Information:** <http://roadmap.ubc.ca/hholder/>.
- 14-19 **MATHTOOLS'99, 2nd International Conference "Tools for Mathematical Modelling"**, Saint-Petersburg State Technical University, Saint-Petersburg, Russia. (Dec. 1998, p. 1501)
- * 14-24 **NATO Advanced Studies Institute on Mathematical Problems Arising from Biology**, Fields Institute, Toronto, Canada. **Organizing Committee:** R. Durrett (Cornell Univ.), C. Neuhauser (Univ. of Minnesota). **Program Committee:** D. Dawson (Fields Institute), O. Diekmann (Univ. of Utrecht), R. Durrett (Cornell Univ.), S. Levin (Princeton Univ.), C. Neuhauser (Univ. of Minnesota). **Invited Speakers:** O. Diekmann (Univ. of Utrecht), P. Donnelly (Oxford Univ.), J. Felsenstein (Univ. of Washington), B. Golding (McMaster Univ.), B. Grenfell (Cambridge Univ.), A. Greven (Univ. of Erlangen), R. Griffiths (Monash Univ.), A. von Haeseler (Univ. Munchen), A. Hastings (Univ. of California, Davis), R. Hudson (McMaster Univ.), N. Kaplan (National Institute of Environmental Health Sciences, Research Triangle Park), S. Levin (Princeton Univ.), H. Metz (Leiden Univ.), D. Mollison (Heriott-Watt Univ.), S. Pacala (Princeton Univ.), D. Rand (Univ. of Warwick), D. Sankoff (Centre de Recherches Mathématiques, Univ. de Montreal), S. Tavaré (Univ. of Southern California). **Focus:** The workshop will focus on the many interesting mathematical problems that are motivated by a desire to understand the workings of various biological systems. In order to facilitate and stimulate interdisciplinary research, the workshop will bring together a broad range of biologists, mathematical biologists, and mathematicians. Each invited speaker will deliver two lectures. The emphasis in the first week will be ecological models, and in the second will be population genetics. **Information:** Further information may be found at <http://www.fields.utoronto.ca/biol.html>. The Fields Institute for Research in Mathematical Sciences, 222 College Street, Second Floor, Toronto, Ontario, M5T 3J1, Canada; tel: 416-348-9710; fax: 416-348-9385; Web site: <http://www.fields.utoronto.ca/>.
- * 14-25 **Workshop on Mathematical Physiology**, University of British Columbia, Vancouver, British Columbia. **Topics:** This session is divided into three main topics: neurophysiology, cardiology, and endocrinology. **Speakers:** B. Ermentrout (Univ. of Pittsburgh), L. Glass (McGill Univ.), J. P. Keener (Univ. of Utah), J. Keizer (Univ. of California at Davis), A. Sherman (NIDDK/MRB), J. Rinzel (Courant Institute of Mathematical Sciences). **Information:** <http://www.pims.math.ca/sections/activities/physio.html>.
- 16-19 **Joint Conference of the 5th Barcelona Logic Meeting and the 6th Kurt Gödel Colloquium**, Casa de la Caritat, Barcelona, Spain. (May 1999, p. 588)
- 16-19 **Theoretical Fluid Dynamics and Related Topics**, Centro de Matemática e Aplicações Fundamentais da Universidade de Lisboa, Lisbon, Portugal. (Mar. 1999, p. 374)
- * 16-20 **1st Canadian Conference on Non-linear Solid Mechanics**, University of Victoria, Victoria, British Columbia. **Sponsored By:** Univ. of Victoria, Department of Mechanical Engineering, Department of Mathematics and Statistics, The Pacific Institute for the Mathematical Sciences. **Information:** <http://www.CanCNSM.uvic.ca/>.
- * 17-20 **Budapest-Chemnitz-Praha-Torun Algebra Colloquium**, Department of Mathematics, Charles University, Prague, Czech Republic. **Invited Speakers:** G. Bobinski (Torun), K. Bongartz (Wuppertal), M. Domokos (Budapest), P. Draexler (Bielefeld), J. Jezek (Praha), H. Lenzing (Paderborn). **Information:** This is the fourth Algebra Colloquium, this time held in Prague. To participate in the conference, contact either J. Trlifaj (trlifaj@karlin.mff.cuni.cz) or R. El Bashir (bashir@karlin.mff.cuni.cz). Postal address is Dept. of Algebra, MFF UK, Sokolovska 83, Praha 8, 186 75, Czech Republic. More information is available at <http://www.karlin.mff.cuni.cz/katedry/ka/>.
- 17-20 **Six Projects in Mathematics and Physics—A Cooperation Project between Scientists from the CIS and Germany**, Technische Universität Berlin, Germany. (Aug. 1998, p. 899)
- 19-23 **NSF-CBMS Regional Conference on Mathematical Analysis of Viscoelastic Flows**, University of Delaware, Newark, Delaware. (Apr. 1999, p. 483)
- 19-25 **Dynamics of Patterns**, Anogia, Crete, Greece. (May 1999, p. 588)
- * 20-24 **Groupoids in Physics, Analysis and Geometry (Joint Summer Research Conference Series)**, University of Colorado, Boulder, Colorado. **Information:** See <http://www.ams.org/meetings/src.html> for more information.
- 20-24 **Homotopy Methods in Algebraic Topology (Joint Summer Research Conference Series)**, University of Colorado, Boulder, Colorado. (Mar. 1999, p. 375)
- 20-24 **The Sixth Conference of The Canadian Number Theory Association (CNTA '99)**, University of Manitoba, Winnipeg, Canada. (Jan. 1999, p. 67)
- * 20-24 **Wave Phenomena in Complex Media (Joint Summer Research Conference Series)**, University of Colorado, Boulder, Colorado. **Information:** See <http://www.ams.org/meetings/src.html> for more information.
- 21-25 **International Workshop on Special Functions: Asymptotics, Harmonic Analysis, and Mathematical Physics**, City

- University of Hong Kong, Hong Kong, China. (Nov. 1998, p. 1378)
- 21–26 **Conference on Symplectic Geometry**, Instituto Superior Tecnico, Lisboa, Portugal. (May 1999, p. 588)
- 21–27 **European Summer Courses 1999, C.I.M.E.: Computational Mathematics Driven by Industrial Applications**, Martina Franca (Taranto), Italy. (May 1999, p. 588)
- 21–July 2 **Computational Algebra With Applications**, University of Wyoming, Laramie, Wyoming. (Jan. 1999, p. 67)
- 21–July 3 **PDEs in Models of Superfluidity, Superconductivity and Reactive Flow (NATO Advanced Study Institute)**, Cargese, Corsica, France. (May 1999, p. 588)
- 23–25 **Bar-Ilan Symposium on The Foundations of Artificial Intelligence (BISFAI-99)**, Ramat Gan, Israel. (Jan. 1999, p. 67)
- * 23–25 **Workshop on Smoothing Applications**, University of British Columbia, Vancouver, British Columbia.
Invited Speakers: K. Berhane (Univ. of Southern California), C. Dean (Simon Fraser Univ.), I. Gijbels (Catholic Univ. of Louvain), N. Heckman (UBC, organizer), H. Muller (UC Davis), J. Ramsay (McGill Univ.), J. Rice (UC Berkeley).
Format: The emphasis of the workshop is on the applications of smoothing methods to data. Several sessions will be centered around discussion of specific data sets, which will be available beforehand via this Web site. We hope that workshop participants will take a look at the data sets before the workshop. Other sessions will consist of more traditional-style presentations.
Information: <http://www.stat.ubc.ca/smoothing/>.
- 23–26 **Nonlinear Modeling and Control, An International Seminar**, Nayanova University, Samara, Russia. (Mar. 1999, p. 375)
- * 24–27 **5th IMACS Conference on Applications of Computer Algebra, ACA '99**, El Escorial, Spain.
Focus: The meeting will focus on actual or possible applications of nontrivial computer algebra techniques to other fields and substantial interactions of computer algebra with other fields.
General Chair: E. Roanes-Lozano, Dept. of Algebra, Univ. Complutense de Madrid, Paseo Juan XXIII s/n, 28040 Madrid, Spain; e-mail: eroanes@ucmos.sim.ucm.es or imacs-aca99@ccedu.ucm.es.
Meeting Format: The meeting will be run in the standard IMACS format where individuals are invited to organize a special session. Individuals can propose a special session by contacting the program chair. Paper submissions may be directed to an organizer of an appropriate special session (which will be listed at the Web site) or mailed to the conference chair, who will forward the paper.
- Information:** <http://math.unm.edu/ACA/1999.html>, or contact the IMACS secretariat.
- 25–30 **Intermediate Questions of Model Theory and Universal Algebra**, Novosibirsk State Technical University & Math. Institute of Siberian branch of Academy of Russia, Novosibirsk, Russia. (Sept. 1998, p. 1052)
- 25–30 **Number Theory and Arithmetical Geometry: Arakelov Geometry and Applications**, Obernai (near Strasbourg), France. (May 1999, p. 588)
- 26–July 2 **Algebra and Discrete Mathematics, Infinite Combinatorics and their Impact on Algebra**, Hattingen, Germany.
- 26–July 2 **Holomorphic Dynamics**, Anogia, Crete, Greece. (May 1999, p. 589)
- 27–July 1 **1999 Summer Conference on Brauer Groups**, University of Montana, Missoula, Montana. (Jan. 1999, p. 67)
- * 27–July 1 **Differential Geometric Methods in the Control of Partial Differential Equations (Joint Summer Research Conference Series)**, University of Colorado, Boulder, Colorado.
Information: See <http://www.ams.org/meetings/src.html> for more information.
- * 27–July 1 **Structured Matrices in Operator Theory, Numerical Analysis, Control, Signal and Image Processing (Joint Summer Research Conference Series)**, University of Colorado, Boulder, Colorado.
Information: See <http://www.ams.org/meetings/src.html> for more information.
- 27–July 4 **ACACSE'99: Applied Clifford Algebra in Cybernetics, Robotics, Image Processing and Engineering International Workshop as a Special Parallel Session of the 5th International Conference on Clifford Algebras and their Applications in Mathematical Physics**, Ixtapa, Zihuatanejo, Mexico. (Jan. 1999, p. 67)
- 27–July 4 **Local and Global Problems for Dirac Operators**, Ixtapa, Zihuatanejo, Mexico. (May 1999, p. 589)
- * 27–July 18 **PIMS Mini-Program in Geometric Functional Analysis**, University of British Columbia, Vancouver, British Columbia.
Information: <http://www.pims.math.ca/>.
- 27–July 25 **Summer Mathematics Program for Undergraduate Women**, Carleton and St. Olaf Colleges, Northfield, Minnesota. (Feb. 1999, p. 277)
- 28–30 **International Conference on Geometry**, University of Porto, Portugal. (Mar. 1999, p. 375)
- 28–July 1 **The 5th Experimental Chaos Conference**, Orlando, Florida. (May 1999, p. 589)
- 28–July 2 **Fourth Hungarian Colloquium on Limit Theorems in Probability and Statistics**, Balatonlelle, Hungary. (Mar. 1999, p. 376)
- 28–July 2 **Nonlinear Partial Differential Equations: An International Conference in Memory of S. N. Kruzhkov**, Université de Franche-Comté, Besançon, France. (Mar. 1999, p. 376)
- 28–July 6 **European Summer Courses 1999, C.I.M.E.: Iwahori-Hecke Algebras and Representation Theory**, Martina Franca (Taranto), Italy. (May 1999, p. 590)
- 29–July 3 **Theory and Mathematics in Biology and Medicine (TMBM99)**, Vrije Universiteit, Amsterdam, The Netherlands. (Sept. 1998, p. 1052)
- 30–July 1 **International Workshop on Implicit Computational Complexity (ICC'99)**, Trento, Italy. (Mar. 1999, p. 376)
- 30–July 2 **First International Symposium on Imprecise Probabilities and Their Applications**, Ghent, Belgium. (Mar. 1999, p. 376)
- * 30–July 12 **The 1999 Federated Logic Conference**, Trento, Italy.
Focus: Logic has been called “the calculus of computer science”, playing a crucial role in diverse areas such as artificial intelligence, computational complexity, distributed computing, database systems, hardware design, programming languages, and software engineering. The Federated Logic Conference brings together four synergistic conferences that apply logic to computer science.
Conference Highlights: IEEE Symposium on Logic in Computer Science (LICS'99), July 2–5, with invited talks by H. Friedman, J.-Y. Girard, J. Halpern, U. Montanari, and L. Paulson; Conference on Rewriting Techniques and Applications (RTA'99), July 2–4, with invited talks by B. Courcelle, F. Otto, and F. van Raamsdonk; Conference on Automated Deduction (CADE'99), July 7–10, with invited talks by E. Grädel, R. Nieuwenhuis, and T. Nipkow; Conference on Computer-Aided Verification (CAV'99), July 7–10, with tutorials by R. Alur, E. Clarke, D. Dill, and J. Sifakis on July 6; and invited talks by E. Brinksma, A. Deutsch, Z. Manna, and G. Stalmarck.
Keynote Events: July 5: “Using formal verification methods in an industrial environment for a decade. Conclusions and perspectives” by G. Roucairol (Groupe Bull R&D president); July 6: Panel on “Current trends in research funding in the use of logic and formal methods in computer science”, R. Bajcsy (NSF) and G. Metakides (Information Technologies, European Commission).
Information: <http://www.cs.bell-labs.com/cm/cs/what/floc99/>; <http://www-rocq.inria.fr/verso/floc99/>; <http://floc99.itc.it/home.htm> (after April 5).

July 1999

- * 1–4 **Second Italian-Spanish Meeting on Financial Mathematics**, Second University of Naples, Naples, Italy.

- Sponsors:** Univ. of Almería, Second Univ. of Naples, Univ. of Naples "Federico II", and Italian Institute for Philosophical Studies.
- Organizers and Contacts:** A. G. S. Ventre, e-mail: alventre@unina.it; and S. C. Rambaud, e-mail: scrudz@ualm.es.
- Topics:** Financial mathematics, actuarial mathematics, portfolio theory, term structure of interest rates, financial models, financial markets.
- Deadline:** Papers up to 12 pages long should be submitted no later than June 5, 1999.
- 1–10 **European Summer Courses 1999, C.I.M.E.: Theory and Applications of Hamiltonian Dynamics**, Cetraro (Cosenza), Italy. (May 1999, p. 590)
- * 1–September 15 **Mini-Program in Invariants of Three Manifolds**, University of Calgary, Calgary, Alberta.
Information: <http://www.pims.math.ca/>.
- 2–5 **Fourteenth Annual IEEE Symposium on Logic in Computer Science**, Trento, Italy. (Dec. 1998, p. 1501)
- 2–5 **VIIIth Oporto Meeting on Geometry, Topology and Physics**, Dep. Matemática Pura, Fac. Ciências, Oporto University, Oporto, Portugal. (May 1999, p. 590)
- 2–10 **The 1999 Federated Logic Conference (FLoC '99)**, Trento, Italy. (Sept. 1998, p. 1052)
- 3–9 **Computer Vision and Speech Recognition: Statistical Foundations and Applications**, Anogia, Crete, Greece. (May 1999, p. 590)
- 4–9 **Geometry and Quantization of Symplectic Manifolds and Quantum Integrable Systems**, Centro Stefano Franscini, Ascona, Switzerland. (Mar. 1999, p. 376)
- 4–11 **Paul Erdős and His Mathematics**, Hungarian Academy of Sciences, Budapest, Hungary. (Jan. 1999, p. 68)
- 5 **Mathematical Finance Workshop**, Edinburgh, Scotland. (May 1999, p. 590)
- 5–9 **The Fourth International Congress on Industrial and Applied Mathematics**, Edinburgh, Scotland. (Dec. 1997, p. 1500)
- 5–9 **Quadratic Forms and Their Applications**, University College, Dublin, Ireland. (May 1999, p. 590)
- 5–August 21 **Summer Semester on Complex Potential Theory and its Applications**, Feza Gursey Institute, Istanbul, Turkey. (May 1999, p. 591)
- 6 **Intuitionistic Modal Logics and Applications, IMLA'99 (Satellite to LICS'99)**, Trento, Italy. (May 1999, p. 591)
- 6–16 **Advanced Course on Mathematical Aspects of Image Processing**, Centre de Recerca Matemàtica and Centre de Visió per Computador, Barcelona, Spain. (May 1999, p. 591)
- 7–15 **European Summer Courses 1999, C.I.M.E.: Global Theory of Minimal Surfaces in Flat Spaces**, Martina Franca (Taranto), Italy. (May 1999, p. 591)
- 8–9 **100 Years After Sophus Lie**, University of Leipzig, Leipzig, Germany. (Feb. 1999, p. 277)
- 8–17 **School on Singularities in Algebraic Geometry and String Theory**, Complexo Interdisciplinar of Universidade de Lisboa, Lisbon, Portugal. (May 1999, p. 592)
- 8–24 **XXIXth Probability Summer School**, Saint-Flour (Cantal), France. (May 1999, p. 592)
- * 9–10 **Mathematics and Its Applications throughout the Curriculum**, Indiana University, Bloomington, Indiana.
Focus: Did you ever think that, together with a colleague in another discipline, you could come up with materials and approaches that could be used to teach undergraduate mathematics in that area? Come to this workshop and see examples of such collaborations. Representatives of the seven consortia who have been participating in this NSF-sponsored initiative will describe their multidisciplinary courses and modules and help you design your own. If you are already involved in such a project, you should plan to exhibit your materials at the workshop-long poster session. Many of the courses incorporate computer technology and the Internet to increase student ability to apply mathematics in real-world problem solving.
Support: Financial support is available for qualifying two-person teams.
Information: For more information and registration form, see <http://matc.siam.org/workshop/>, or contact P. Harnett, Department of Mathematics, Swain Hall, Indiana Univ., Bloomington, IN 47405; pharnett@indiana.edu.
- 9–17 **Computation in Group Theory and Geometry**, University of Warwick, Coventry, England. (Jan. 1999, p. 68)
- 11–August 15 **Seventh Annual Canada/USA Mathcamp**, University of Washington, Seattle, Washington. (Dec. 1998, p. 1502)
- 12–14 **Feynman Integrals and Related Topics**, Yonsei University, Seoul, Korea. (May 1999, p. 592)
- 12–15 **On-Line Decision Making**, Rutgers University, Busch Student Center, Piscataway, New Jersey. (May 1999, p. 592)
- 12–16 **British Combinatorial Conference 1999**, University of Kent at Canterbury, Canterbury, Kent CT2 7NF, UK. (May 1999, p. 592)
- 12–16 **First International Joint Meeting of the American Mathematical Society and the Australian Mathematical Society**, Melbourne, Australia. (Nov. 1998, p. 1378)
- 12–17 **Journées Arithmétiques 1999**, Rome, Italy. (May 1998, p. 642)
- 12–17 **Workshop on "Model Theory and Permutation Groups"**, University of Trento, Italy. (May 1999, p. 592)
- 12–18 **Third International Conference on Symmetry in Nonlinear Mathematical Physics**, Kiev, Ukraine. (Jan. 1999, p. 68)
- 13–16 **International Conference on Applied Partial Differential Equations**, Tongji University, Shanghai, China. (Oct. 1998, p. 1230)
- 13–22 **International Conference on Bio-mathematics-Bioinformatics and Applications of Functional Differential Difference Equations**, Akdeniz University, Antalya, Turkey. (May 1999, p. 592)
- * 15–16 **Geometric and Combinatorial Methods in the Hermitian Sum Spectral Problem**, University of Coimbra, Portugal.
Organized By: Centro Internacional de Matemática, Centro de Matemática da Universidade de Coimbra.
Organizing Committee: E. Marques de Sa, J. F. Queiro, A. P. Santana.
Aim: A problem in matrix theory which has interested mathematicians for many years is the following: Given two Hermitian matrices A and B , describe the spectrum of $A + B$ in terms of the spectra of A and B . Recently there were decisive developments in this problem, with contributions from algebraic geometry, representation theory, combinatorics, and harmonic analysis. The workshop will gather experts from different fields who have worked on this problem.
List of Speakers: J. Day (San Jose State Univ.), S. Friedland (Univ. of Illinois, Chicago), A. Klyachko (Bilkent Univ., Ankara, Turkey), A. Knutson (Brandeis Univ.), N. Wildberger (Univ. of New South Wales, Sydney, Australia), A. Zelevinsky (Northeastern Univ.).
Information: <http://www.mat.uc.pt/~jfqueiro/wrkshp2.html>.
- 15–17 **Applications of Physics in Financial Analysis**, Trinity College, Dublin, Ireland. (Feb. 1999, p. 277)
- 16–18 **ESA'99 - Seventh Annual European Symposium on Algorithms**, Prague, Czech Republic. (Jan. 1999, p. 68)
- 16–18 **Olga Tausky Todd Celebration of Careers in Mathematics for Women**, Mathematical Sciences Research Institute, Berkeley, California. (Jan. 1999, p. 68)
- 17–23 **Groups of Tree Automorphisms and Lattices**, Anogia, Crete, Greece. (May 1999, p. 593)
- 18–23 **Vision Geometry VIII (SD90)**, Colorado Convention Center, Denver, Colorado. (Jan. 1999, p. 69)
- 18–28 **Foundations of Computational Mathematics (FoCM)**, University of Oxford, Oxford, England. (Mar. 1999, p. 377)
- 19–22 **2nd International Symposium on Finite Volumes for Complex Applications—Problems and Perspectives**, University of Duisburg, Germany. (May 1999, p. 593)

19-23 **Statistical Inference from Genetic Data on Pedigrees**, Houghton, Michigan. (May 1999, p. 593)

19-24 **CT99 - International Category Theory Meeting**, University of Coimbra, Coimbra, Portugal. (May 1999, p. 593)

19-30 **Symmetries and the Moment Mapping**, CIRM(Marseille-Luminy), France. (Apr. 1999, p. 485)

*19-30 **Workshop on Mathematical Epidemiology**, University of British Columbia, Vancouver, British Columbia.

Aim: Mathematical epidemiology is concerned with modeling the spread of infectious disease in a population. The aim is generally to understand the time course of the disease with the goal of controlling its spread. Such models are used, for example, to guide policy in vaccination strategies for childhood diseases. Classical epidemic models assumed that the total population is constant and were formulated as a system of ordinary differential equations. When the disease causes death (e.g., HIV/AIDS), the assumption of a constant population may not be valid. During the last twenty years, models with variable population size have been formulated and analyzed. Such models combine demographic and epidemic effects. Striving for more realism, more complex models include such detail as time delays, spatial heterogeneity, age structure, two sexes, multigroups, vectors, and stochastic variation. The dynamical systems that result are highly nonlinear and complex.

Speakers: L. Allen (Texas Tech. Univ.), S. Blower (Univ. of California at San Francisco), C. Castillo-Chavez (Cornell Univ.), K. Hadeler (Univ. Tuebingen), H. Hethcote (Univ. of Iowa).

Information: <http://www.pims.math.ca/sections/activities/epid.html>.

19-December 17 **Structure Formation in the Universe**, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom. (Mar. 1999, p. 377)

20-24 **IMA "HOT TOPICS" Workshop: Decision Making Under Uncertainty: Energy and Environmental Models**, Institute for Mathematics and Its Applications, University of Minnesota, Minneapolis, Minnesota. (Mar. 1999, p. 377)

*25-30 **Workshop on Discrete Optimization 1999 (DO'99)**, RUTCOR, Rutgers University, Piscataway, New Jersey.

Sponsor: DIMACS Center.

Organizers: E. Boros and P. Hammer, Rutgers Univ.

Goal: The main goal of DO'99 is to survey the state of the art in discrete optimization through presentation of expository lectures presenting the major subareas of the field, including its theoretical foundations, methodology, and applications. DO'99 will also provide a forum for the presentation of new developments in discrete optimization through a series of contributed talks,

presenting the latest research of the participants.

Local Arrangements: P. Pravato, DIMACS Center; pravato@dimacs.rutgers.edu; tel: 732-445-5929.

Information: e-mail: D099@rutcor.rutgers.edu; WWW: <http://dimacs.rutgers.edu/Workshops/index.html>.

25-August 7 **The 14th International Conference on Banach Algebras**, Pomona College, Claremont, California. (Sept. 1998, p. 1052)

26-30 **Conference on Functional Differential and Difference Equations**, Instituto Superior Técnico, Lisbon, Portugal. (Mar. 1999, p. 377)

26-30 **ENUMATH 99 - Third European Conference on Numerical Mathematics and Advanced Applications**, University of Jyväskylä, Jyväskylä, Finland. (Sept. 1998, p. 1052)

26-30 **International Conference on Theory of Fixed Points and its Applications**, São Paulo, Brazil. (Mar. 1999, p. 378)

26-August 6 **SMS-NATO ASI: Integrable Systems: From Classical to Quantum**, Université de Montréal, Montréal, Canada. (Jan. 1999, p. 69)

*26-August 11 **International Conference and Workshop on Valuation Theory**, Saskatoon, Saskatchewan, Canada.

Aim: This conference is dedicated to Paulo Ribenboim in recognition of his extensive contributions to the subject. Tutorials will be given on July 26 and 27. The conference will be held from July 28 through August 4. There will be a special session in honor of Paulo Ribenboim on July 31, and the informal workshop will be held from August 5 through August 11. The conference is intended to cover recent developments in valuation theory and its applications: algebraic geometry (especially local uniformization), real algebraic geometry (and quadratic forms), Galois theory, rigid analysis and curves over valuation rings, model theory of valued fields (especially in positive characteristic), o-minimal expansions of the reals (and Hardy fields), ultrametric spaces and spherically complete fields, p-adic numbers, noncommutative valuation theory.

Scientific Committee: H. Brungs (Univ. of Alberta), B. Green (Univ. of Stellenbosch), W. Luetkebohmert (Univ. Ulm), A. Prestel (Univ. Konstanz), S. Priess-Crampe (Univ. Muenchen), M. Spivakovsky (Univ. of Toronto), B. Teissier (École Normale Supérieure, Paris).

Organizers: A. Carson, D. Haskell (College of the Holy Cross), F.-V. Kuhlmann, S. Kuhlmann (Univ. of Saskatchewan), M. Marshall (Univ. of Saskatchewan), H. Schoutens (Wesleyan Univ.).

Confirmed Speakers: S. Abhyankar (Purdue), C. Andradas (Madrid), R. Brown (Hawaii), A. Buium (Urbana), G. Christol (Paris), V. Cossart (Versailles), M. Coste

(Rennes), T. Craven (Hawaii), D. Cutkosky (Missouri), N. Dubrovin (Vladimir), J. Engler (Campinas), Y. Ershov (Novosibirsk), J. Graeter (Potsdam), U. Hartl (Ulm), R. Huber (Wuppertal), S. Khanduja (Chandigarh), H. Knaf (Heidelberg), J. Koenigsmann (Konstanz), K. H. Leung (Singapore), Q. Liu (Bordeaux), F. Loeser (Paris), J. Madden (Baton Rouge), J. Minac (Western Ontario), F. van Oystayen (Antwerpen), O. Piltant (Paris), F. Pop (Bonn), P. Popescu-Pampu (Paris), V. Powers (Emory), A. Reguera (Valladolid), P. Ribenboim (Kingston), P. Roquette (Heidelberg), M. Saidi (Bonn), T. Scanlon (Berkeley), C. Scheiderer (Regensburg/Duisburg), E. Schoerner (Munich), N. Schwartz (Passau), J. Shackell (Canterbury), P. Speissegger (Toronto), M. Vaquie (Paris), A. Wadsworth (San Diego).

*26-August 13 **1999 Summer Research Institute**, University of Washington, Seattle, Washington.

Information: See <http://www.ams.org/meetings/>.

26-August 13 **School on Algebraic Geometry**, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy. (Mar. 1999, p. 378)

27-August 1 **Loops'99**, Czech University of Agriculture, Prague, Czech Republic. (Mar. 1999, p. 378)

*28-31 **International Symposium on Symbolic and Algebraic Computation**, SFU Harbour Centre, Vancouver, British Columbia.

Information: monagan@cecm.sfu.ca/.

*30-August 1 **The Second Annual Conference of Bridges: Mathematical Connections in Art, Music, and Science**, Southwestern College, Winfield, Kansas.

Suggested Topics: Fractals, math and music, tessellations, geometry in quilting, M. C. Escher work, math and 3-dimensional art, origami, mathematics and architecture, computer-generated art, math and art in culture, art in hyperbolic geometry.

General Session Contributors: B. Collins (Kansas City, MO), D. Daniel (Southwestern College), M. Field (Univ. of Houston, TX), N. Friedman (Univ. of New York, Albany), J. Kappraff (New Jersey Inst. of Tech.), I. Rousseau (Summit, NJ), C. H. Séquin (Univ. of California, Berkeley), J. Sullivan (Univ. of Illinois, Urbana-Champaign).

Special Session and Paper Contributors: A. Assadi, E. Demaine, M. Demaine, N. A. Diaz, D. Dunham, S. Eberhart, H. Eghbalian, R. Enrich, R. Fathauer, C. Federico, D. Gerhard, G. R. Greenfield, J. K. Haack, L. Holbrook, K. Hopper, D. Isaksen, A. Karkowski, E. Knoll, P. LaFollette, A. Lubiwi, K. Manske, S. Marcus, B. Mayhew, D. Meyer, J. Meyer, S. Morgan, R. Morrison, R. Sarhangi, D. R. Schol, C. Singer, D. Thoman, K. Williams.

Information: For more information (or if you want to add your e-mail to the mailing list) you may contact: R. Sarhangi,

Bridges, Southwestern College, 100 College Street, Winfield, KS, 67156; e-mail: sarhangi@jinx.sckans.edu; tel: 316-221-8373; home page: <http://www.sckans.edu/~bridges/>. You may also contact the following Bridges Advisory Board members regarding the conference: East: N. Friedman, Dept. of Mathematics and Statistics, Univ. at Albany, State Univ. of New York, Albany, NY 12222; e-mail: artmath@math.albany.edu; tel: 518-442-4621; West: C. Séquin, Computer Science Division, EECS Dept., Univ. of California, Berkeley, CA 94720; e-mail: sequin@cs.berkeley.edu; tel: 510-642-5103.

31–August 2 **Mathfest 99**, Mathematical Association of America, Providence, RI. (May 1999, p. 593)

August 1999

August–December **MSRI Program in Galois Groups and Fundamental Groups**, Mathematical Sciences Research Institute, Berkeley, California. (Sept. 1998, p. 1053)

August–May 2000 **MSRI Program in Noncommutative Algebra**, Mathematical Sciences Research Institute, Berkeley, California. (Sept. 1998, p. 1053)

1–6 **1999 ASL European Summer Meeting (Logic Colloquium '99)**, Utrecht, The Netherlands. (Jan. 1999, p. 69)

1–7 **EQUADIFF 99**, Free University, Berlin, Germany. (Nov. 1998, p. 1378)

2–4 **Workshop on the Theory and Practice of Integer Programming in Honor of Ralph E. Gomory on the Occasion of His 70th Birthday**, IBM Watson Research Center, Yorktown Heights, New York. (May 1999, p. 594)

2–13 **IMA Summer Program: IMA Workshop on Codes, Systems and Graphical Models**, University of Minnesota, Minneapolis, Minnesota. (Jun/Jul. 1998, p. 760)

* 2–13 **Workshop on Mathematical Ecology**, University of British Columbia, Vancouver, British Columbia.

Focus: Ecology is the study of the distribution and abundance of organisms. Mathematical analysis and methods contribute to this study at a number of different levels.

Speakers: F. Adler (Univ. of Utah), G. Dwyer (Univ. of Chicago), S. Ellner (North Carolina State Univ.), S. Gardner (Imperial College at Silwood Park), B. Luttbeg (Yale Univ.), M. Mangel (Univ. of California at Santa Cruz), J. Newman (Univ. of Oxford).

Information: <http://www.pims.math.ca/sections/activities/eco.html>.

* 2–20 **Frontiers of Mathematical Physics, Summer Workshop on Particles, Fields and Strings '99**, University of British Columbia, Vancouver, British Columbia.

Information: <http://kepler.physics.ubc.ca/~pfs99/>.

* 2–20 **Ninth Jyväskylä Summer School**,

University of Jyväskylä, Jyväskylä, Finland. **Aim:** The Jyväskylä Summer School offers courses in various fields of science for advanced undergraduate students, graduate students, and postdocs, with an aim of encouraging interdisciplinary study.

Mathematics and Applied Mathematics Courses: Percolation on Trees and Groups, Aug. 2–13, 20 hours, R. Lyons (Indiana Univ.); Brownian Motion, Fractal Dimension and Trees, Aug. 2–8, 10 hours, Y. Peres (Jerusalem and Berkeley); Stochastic Differential Equations, Aug. 2–6, 10 hours, I. Gyöngy (Edinburgh); The Markov Chain Monte Carlo Method—A Rigorous Approach, Aug. 9–13, 10 hours, M. Jerrum (Edinburgh); Evolutionary Computing for Complex Multidisciplinary Design, Aug. 9–13, 10 hours, J. Periaux (Dassault Aviation, France).

Information: <http://www.jyu.fi/~summerschool/>.

* 5–6 **International Conference on the Collatz Problem and Related Topics**, Katholische Universitaet Eichstaett, Germany.

Focus: This conference is intended for anyone interested in the $3x + 1$ problem (also known as the Syracuse algorithm, Collatz's, Kakutani's, or Ulam's problem) and related mathematics.

Organizers: M. Chamberland, Department of Mathematics, Grinnell College, Grinnell, IA 50112; tel: 515-269-4207; fax: 515-269-4984; e-mail: chamberl@math.grin.edu; G. Wirsching, Mathematisch-Geographische Fakultät, Katholische Universitaet Eichstaett, Ostenstrasse 26, 85072 Eichstaett, Germany; tel: 08421-93-1456; fax: 08421-93-1789; e-mail: guenther.wirsching@ku-eichstaett.de.

Invited Speaker: J. C. Lagarias (AT&T Labs). **Contributed Talks:** If you are interested in giving a talk, please contact M. Chamberland before May 31.

Registration: US\$40 or 36 Euro before March 31; US\$60 or 54 Euro after April 1. Checks (made out to the "Katholische Universitaet Eichstaett") should be sent to M. Chamberland.

Information: <http://www.math.grinnell.edu/~chamberl/conf.html>.

8–14 **Second International Conference on Boundary Value Problems, Integral Equations and Related Problems**, Chengde, Hebei, and Beijing, China. (Feb. 1999, p. 277)

9–14 **György Alexits Memorial Conference**, Budapest, Hungary. (Jun/Jul. 1998, p. 760)

9–20 **Summer School on Empirical Processes**, University of Aarhus, Denmark. (Dec. 1998, p. 1502)

* 10–15 **International Conference on Mathematical Logic**, Novosibirsk, Russia.

Dedication: The conference is dedicated to A. I. Malt'sev (1909–1967) 90th birthday anniversary and the 275th anniversary of the Russian Academy of Sciences.

Program Committee: S. I. Adyan, B. Cooper, E. Engeler, Yu. L. Ershov (chairman), S. S.

Goncharov, A. Macintyre, L. L. Maksimova, Yu. V. Matiyasevich, A. Nerode, H. Ono, E. A. Palyutin, M. G. Peretyat'kin, A. Prestel, A. A. Razborov, H. Schwichtenberg, R. Soare, and M. A. Taitslin.

Scope: The conference program is of wide scope, including model theory, computability theory, proof theory, and logic foundation of computer science.

Invited Speakers: J. Baldwin, L. Beklemishev, U. Berger, P. Cholak, J. Knight, J. Königsmann, D. Leivant, S. Starchenko, s. Wainer, B. I. Zilber.

Abstracts: Abstracts (one-page limit in 12 pt. font) will be published and should be sent by the deadline of June 1, 1999, to: A. N. Ryaskin, Conference on Mathematical Logic, Institute of Mathematics, Novosibirsk, 630090, Russia, e-mail: ryaskin@math.nsc.ru; or can be submitted (using facilities of Atlas Mathematical Conference Abstracts) via <http://at.yorku.ca/cgi-bin/amca/submit/cacs-01>. Your text will immediately become available to everyone. This will be done automatically and doesn't imply acceptance of the paper. The Program Committee will notify you about acceptance/rejection of your paper not later than June 15, 1999.

Fee: Participation fee equivalent to US\$50 (this does not include accommodations, subsistence, excursion, banquet) should be paid after arrival. For participants from NIS countries it could be reduced (if you apply).

Information: Tel: 7-383-2-356237, fax: 7-383-2-357808, e-mail: ryaskin@math.nsc.ru, <http://www.math.nsc.ru/conference/malmeet/99/index.html>.

* 11–14 **Workshop on Algorithms and Data Structures**, SFU Harbour Centre, Vancouver, British Columbia.

Information: arvind@cs.sfu.ca.

* 15–18 **11th Canadian Conference on Computational Geometry**, University of British Columbia, Vancouver, British Columbia.

Information: snoeyink@cs.ubc.ca.

16–18 **Conference in Honor of Daniel J. Kleitman's 65th Birthday**, M.I.T., Cambridge, Massachusetts. (Dec. 1998, p. 1502)

16–20 **International Conference on Analysis and Mathematical Physics in Honor of Lars Gärding on His 80th Birthday**, University of Lund, Sweden. (May 1999, p. 594)

16–21 **International Conference on Differential and Functional Differential Equations**, Moscow, Russia. (Feb. 1999, p. 278)

16–27 **Symposium on Arithmetic Fundamental Groups and Noncommutative Algebra**, Mathematical Sciences Research Institute, Berkeley, California. (Mar. 1999, p. 378)

* 16–27 **Workshop on Mathematical Cellular Biology**, University of British Columbia, Vancouver, British Columbia.

Aim: The fields of molecular and cellular

biology have undergone explosive growth over the last decade, with a wealth of biological detail emerging from high-tech experimental techniques. The life of the cell, down to its smallest components, is now the subject of intense scrutiny. We know more about the way that the cell is shaped and controlled, how it moves and divides, how it senses and reacts to its environment, and how it influences other cells than ever before. The way that cell aggregates work together to produce multicellular structures with their own repertoire of behavior is also a fascinating and fervent area of research. Many of the speakers in this list have worked productively at the interface of mathematics and biology. The order of the topics will proceed from the subcellular up the hierarchical scale, highlighting some of the most exciting and productive areas of cross-fertilization of mathematical, theoretical, and experimental work.

Speakers: D. Bottino (Univ. of Utah), M. Dembo (Boston Univ.), V. Foe (Univ. of Washington), B. Goldstein (Los Alamos National Laboratory), A. Mogilner (Univ. of California at Davis), G. Odell (Univ. of Washington), L. Segel (Weizmann Institute), C. Wofsy (Univ. of New Mexico).

Information: <http://www.pims.math.ca/sections/activities/cell.html>.

*18–20 **Symbolic and Numerical Scientific Computation (SNSC99)**, Linz, Austria.

Goal: Further the integration of methods in symbolic and numerical scientific computation.

Information: e-mail: snsc99@risc.uni-linz.ac.at; <http://www.risc.uni-linz.ac.at/conferences/summer99/snsc99.html>.

19–25 **Topology and Dynamics: Rokhlin Memorial**, Euler International Mathematical Institute, St. Petersburg Mathematical Institute of Russian Academy of Science, St. Petersburg, Russia. (May 1999, p. 594)

*19–27 **International Instructional Workshop on Wavelets and Applications**, Department of Mathematics, University of Delhi, India.

Purpose: The purpose of this workshop is: (a) to train a group of young scientists in wavelets, approximation and applications to image analysis, signal processing, informatics, electronics, and biomedical sciences; (b) to acquaint the participants with the recent developments in the area; (c) to bring a few experts in the area together to interact.

Steering Committee: P. K. Jain, A. I. Singh, D. Singh, R. Vasudevan.

Invited Speakers: H.-P. Blatt (Germany), M. D. Buhmann (Germany), H. P. Dikshit (India), B. Fischer (Lubec), P. E. T. Jorgensen (Iowa), M. Krishna (India), R. Lasser (Germany), H. N. Mhaskar (USA), J. Prestin (Germany), U. B. Tewari (India), M. Vaninathan (India), Y. V. Venkatesh (India).

Information: For further details and all correspondence, contact P. K. Jain, Director

of the Workshop, Department of Mathematics, Univ. of Delhi, Delhi-110007, India; tel: 11-7256658; fax: 11-7257049; e-mail: pawankjain@hotmail.com.

20–26 **Eleventh International Congress of Logic, Methodology and Philosophy of Science**, Krakow, Poland. (Jan. 1999, p. 70)

23–27 **International Conference on Topology and its Applications**, Kanagawa University, Yokohama, Japan. (Aug. 1998, p. 899)

23–29 **International Conference on Non-linear Partial Differential Equations**, Lviv, Ukraine. (Mar. 1999, p. 379)

23–September 4 **Generalized Dirac Operators and their Geometric Scattering Theory**, Banach Center, Warsaw, Poland. (Jan. 1999, p. 70)

*24–28 **10th International Workshop and Conference in Stochastic Geometry, Stereology & Image Analysis**, University of Calgary, Calgary, Alberta.

Information: enms@math.ucalgary.ca.

*25–27 **DIMACS Workshop on Diagonal Matrix Scaling and Its Generalizations and Their Applications in Convex Programming over Cones**, DIMACS Center, Rutgers University, Piscataway, New Jersey.

Sponsors: DIMACS Center, Rutgers Univ. **Organizers:** B. Kalantari (Rutgers Univ.), U. Rothblum (Technion-Israel Institute of Technology), and A. Samorodnitsky (DIMACS, Rutgers Univ.).

Goal: The goal of the workshop is to bring together researchers working on theoretical and practical aspects of matrix scaling problems, including matrix balancing, and their generalizations. The workshop hopes to provide more convincing evidence on the broad significance of the matrix scaling problems to researchers, as well as those interested in convex programming, self-concordance theory, duality theory, complexity of algorithms, combinatorial optimization, homogeneous inequalities, numerical analysis, etc. This workshop is presented under the auspices of the Special Year on Large Scale Discrete Optimization.

Contact: B. Kalantari, Rutgers Univ., kalantari@cs.rutgers.edu.

Local Arrangements: P. Pravato, DIMACS Center, pravato@dimacs.rutgers.edu, 732-445-5929.

Information: <http://dimacs.rutgers.edu/Workshops/index.html>.

25–28 **XI International Workshop on Numerical Methods in Viscoelastic Flows**, Vaals, The Netherlands. (Feb. 1999, p. 278)

*25–September 3 **Visions in Mathematics towards 2000**, School of Mathematical Sciences, Tel Aviv University, Tel Aviv, Israel.

Local Committee: M. Bialy, D. Ginzburg, M. Gitik, A. Lazar, L. Polterovich, M. Polyak, M. Sodin, D. Soudry, U. Zwick.

Speakers: N. Alon, V. Arnold, R. Aumann, A. Beilinson, J. Bernstein, S. Bloch, J. Bourgain, L. Carleson, R. Coifman, A. Connes,

M. Douglas, Y. Eliashberg, J. Frohlich, H. Furstenberg, T. Gowers, M. Gromov, H. Hofer, E. Hrushovski, H. Iwaniec, A. Jaffe, V. Kac, D. Kazhdan, S. Kleinerman, M. Kontsevich, A. Kupiainen, E. Lieb, L. Lovasz, R. MacPherson, G. Margoulis, V. Milman, Y. Neeman, S. Novikov, R. Penrose, A. Polyakov, M. Rabin, A. Razborov, P. Sarnak, P. Seymour, P. Shor, Y. Sinai, T. Spencer, R. Stanley, E. Stein, D. Sullivan, J. Tate, V. Voevodsky, A. Wigderson, D. Zagier.

Information: conf2000@math.tau.ac.il.

27–29 **GAMM-Workshop on Computational Plasticity**, Christian-Albrechts-University of Kiel, Germany. (May 1999, p. 594)

*27–September 1 **4th International Conference on Geometry and Applications**, Varna, Bulgaria.

Organizers: The Union of Bulgarian Mathematicians and The Geometry Society of Bulgaria.

Scientific Committee: A. Barlotti, W. Benz, R. Fritsch, P. Gilkey, H. Karzel, O. Kowalski, H.-J. Kroll, H. Stachel, G. Stanilov (chairman), H. Zeidler.

Topics: Foundation of geometry and incidence geometry; differential geometry; CAD and applications in geometry; geometry in the school.

Fee: The conference fee includes a copy of the collection of abstracts, refreshments, social events, and other facilities: regular participants: \$125 USD or 210 DM on-site (in cash); accompanying persons: \$80 USD or 140 DM on-site (in cash).

Registration: Registration forms can be ordered from: G. Stanilov or C. Lozanov, Univ. of Sofia, Faculty of Mathematics and Informatics, 5, James Bourchier Boulevard, 1164 Sofia, Bulgaria; by e-mail to: stanilov@fmi.uni-sofia.bg or lozanov@fmi.uni-sofia.bg; or R. Fritsch, Mathematisches Institut, Univ. Muenchen, Theresienstrasse 39, D-80333 Muenchen, Germany; e-mail: fritsch@rz.mathematik.uni-muenchen.de. Complete registration forms should be received no later than May 1, 1999, by G. Stanilov or C. Lozanov (address above).

30–September 1 **Sixth International Symposium on Generalized Convexity and Monotonicity**, University of the Aegean, Karlovassi, Samos Island, Greece. (Jan. 1999, p. 70)

*30–September 3 **Conference in Honor of Jean Leray**, University of Karlskrona-Ronneby, Sweden.

Organizers: M. de Gosson (Karlskrona), J. Vaillant (Paris VI).

Scientific Committee: B. Booss-Bavnbek, K. Furutani, B. Gaveau, Y. Hamada, R. Lee, B.-W. Schulze.

Confirmed Speakers: A. Bachelot, B. Booss-Bavnbek, A. Bove, S. Cappell, Y. Choquet-Bruhat, P. Ciarlet, F. Colombini, P. Dazord, K. Furutani, B. Gaveau, M. de Gosson, D. Gourdin, O. Gues, Y. Hamada, H. Hedenmalm, C. Houzel, N. H. Ibramigov, S. Illman, K. Kajitani, A. Khrennikov, T. Kobayashi,

R. Lee, J.-L. Lions, C.-M. Marle, V. Nazaykinskiy, J.-P. Nicolas, T. Nishitani, Y. Ohya, B.-W. Schulze, S. Spagnolo, B. Yu. Sternin, G. Tagliatela, G. Tuynman, J. Vaillant, C. Wagschal.

Information: C. de Gosson, Charlyne. de Gosson@ihnhk-r.se; conference home page: <http://www5.hk-r.se/LERAY.nsf/>.

30–September 3 **International Conference on Analysis and Geometry Devoted to the 70th Anniversary of Yu. G. Reshetnyak**, Novosibirsk, Russia. (May 1999, p. 594)

September 1999

September–May **National Mathematics Honor Society Pi Mu Epsilon's Kansas Gamma Chapter, 50th Anniversary**, Wichita State University, Wichita, Kansas. (May 1999, p. 594)

1–3 **First International Conference on the Integration of Dynamics, Monitoring and Control (DYMAC 99)**, Manchester, United Kingdom. (Sept. 1998, p. 1053)

1–3 **Symposium on Operations Research 1999 (SOR'99)**, Magdeburg, Germany. (May 1999, p. 594)

1–10 **Geometry, Integrability and Quantization**, St. Constantine resort (near Varna), Bulgaria. (May 1999, p. 595)

5–11 **XX International Seminar on Stability Problems for Stochastic Models**, Maria Curie-Skłodowska University, Lublin-Naleczow, Poland. (Jan. 1999, p. 70)

6–10 **Second Meeting on Quaternionic Structures in Mathematics and Physics**, Univ. di Roma "La Sapienza", Univ. Roma Tre, Rome, Italy. (May 1999, p. 595)

* 6–10 **Some Trends in Algebra 1999**, Czech Agricultural University, Prague, Czech Republic.

Topics: The fourth STA will focus on categorical and homological algebra and model-theoretic and set-theoretic methods in algebra with applications to rings and modules.

Invited Speakers: P. C. Eklof (Univ. of California, Irvine), E. Enochs (Univ. of Kentucky), R. Goebel (Univ. Essen), M. Prest (Univ. Manchester), L. Salce (Univ. Padova).

Information: Contact J. Trlifaj, trlifaj@karlin.mff.cuni.cz, or R. El Bashir, bashir@karlin.mff.cuni.cz. Postal address is Department of Algebra, MFF UK, Sokolovska 83, Praha 8, 186 75, Czech Republic. More information is available at <http://www.karlin.mff.cuni.cz/katedry/ka/>.

6–24 **School on Modern Statistical Methods in Medical Research (in conjunction with ICMS, Edinburgh, Scotland, UK)**, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy. (Mar. 1999, p. 379)

6–December 17 **Mathematical Developments in Solid Mechanics and Materials Science**, Isaac Newton Institute for Mathe-

tical Sciences, Cambridge, United Kingdom. (Mar. 1999, p. 380)

8–15 **European Summer Courses 1999, C.I.M.E.: Direct and Inverse Methods in Solving Nonlinear Evolution Equations**, Cetraro (Cosenza), Italy. (May 1999, p. 595)

9–11 **IX Congress for the learning and teaching of Mathematics (JAEM)**, Lugo (Galicia), Spain. (Mar. 1999, p. 380)

13–18 **International Conference on Arithmetic Algebraic Geometry**, Venice, Italy. (May 1999, p. 595)

14–16 **ElectrIMACS—Conference on Electrical Machines, Converters and Systems**, Lisbon, Portugal. (Apr. 1998, p. 535)

14–18 **International Conference on Analytic Methods of Analysis and Differential Equations (AMADE)**, Minsk, Belarus. (Jan. 1999, p. 70)

15–19 **GD'99 - Seventh International Symposium on Graph Drawing**, Stirin Castle, Prague, Czech Republic. (Jan. 1999, p. 71)

* 15–23 **Advanced Course on Integral Geometry**, Centre de Recerca Matemàtica, Barcelona, Spain.

Speakers: R. Langevin (Univ. de Bourgogne, Dijon): Introduction to integral geometry; R. Schneider (Albert-Ludwigs-Univ., Freiburg): Integral geometry—measure theoretic approach and stochastic applications.

Information: <http://crm.es/info/acig/acig.html>.

16–22 **The Fourth International Workshop On Differential Geometry and Its Applications**, Brasov, Romania. (Jan. 1999, p. 71)

* 17–18 **Illinois Number Theory Conference**, University of Illinois at Urbana-Champaign, Illinois.

Principal Speakers: K. Alladi, P. Borwein, A. Pollington, K. S. Williams.

Organizers: H. G. Diamond, A. J. Hildebrand.

Information: <http://www.math.uiuc.edu/nt2000/illinois/>.

20–24 **The 10th Biennial Computational Techniques and Applications Conference and Workshops (CTAC99)**, Australian National University, Canberra, Australia. (Feb. 1999, p. 278)

* 20–24 **Third Conference on Stochastic Analysis, Random Fields and Applications and Minisymposium on Stochastic Methods in Financial Models III**, Centro Stefano Franscini, Ascona, Switzerland.

Organizers: R. Dalang (dalang@math.epfl.ch), M. Dozzi (dozzi@iecn.u-nancy.fr), F. Russo (russo@math.univ-paris13.fr).

Invited Speakers: S. Albeverio (Bonn), M. Avellaneda (Columbia), O. Barndorff-Nielsen (Aarhus), G. Ben Arous (EPFL Lausanne), P. Blanchard (Bielefeld), R. Carmona (Princeton), A. B. Cruzeiro (Lisbon), G. Da Prato (SNS Pisa), F. Delbaen (ETH Zurich),

H. Geman (ESSEC), K. Fleischmann (Berlin), N. El Karoui (Polytechnique), F. Moriconi (Perugia), C. Mueller (Rochester), M. Musiela (Sydney), D. Nualart (Barcelona), B. Øksendal (Oslo), G. Pagès (Paris 12), E. Pardoux (Aix-Marseille 1), E. Platen (Canberra), M. Röckner (Bielefeld), B. Rozovski (Southern California), W. J. Runggaldier (Padova), M. Sanz (Barcelona), C. Stricker (Besancon), M. Yor (Paris 6), J. -Cl. Zambirini (Lisbon).

Information: E. Gindraux, gindraux@math.epfl.ch; Web site: <http://www-math.math.univ-paris13.fr/~russo/Ascona99.html>.

* 20–26 **International Symposium on Classical Analysis**, Kazimierz Dolny, Poland.

Organizer: The Technical University of Radom.

Topics: The results and problems in such fields as: several complex variables (especially L^2 -methods), Riemannian and Hermitian geometry, spectral theory in Hilbert space, probability, mathematical physics. Particular consideration will be given to the interrelation of ideas from different areas and to promoting wider knowledge of some important classical theories.

Invited Speakers: K. Goebel, J. Kisiński, J. Ławrynowicz, A. Płoski, P. Rusev, J. Siciak, W. Yin, and Y. Zelinsky.

Scientific Program: The scientific program will consist of invited lectures and thirty 45-minute scientific communications in English.

Information: Information about registration fee, accommodation costs, and submission of manuscripts for the proceedings of the symposium will be presented in the second announcement. For other information contact T. Mazur, Dept. of Mathematics, Technical Univ., Malczewskiego 29, 26-600 Radom, Poland; fax: 4848-26333 or 4848-23969; e-mail: mazurt@kiu.x.man.radom.pl or krupa@alpha.sggw.waw.pl.

23–24 **IMA Tutorial: Low-Speed Combustion**, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 595)

* 26–28 **International Workshop on Analysis of Vibrating Systems**, The Greenwood Inn in Canmore, Alberta, Canada.

Aim: An intensive three-day workshop for the discussion of recent advances in the analysis of vibrations (including discrete and distributed systems and symmetry groups) and the identification of developing problem areas in the analysis of vibrations. In particular, there will be an exchange of ideas between those working with linear and nonlinear models, vibrations being the common ground, and dialog between researchers in engineering and the mathematical sciences (including scientists/engineers from industry).

Invited Speakers: V. M. Adamjam, S. J. Chern, G. Gladwell, I. Gohberg, P. Hagedorn, N. Leonard, A. Lifschitz, J. McLaughlin, S. Namachchivaya, J. Woodhouse.

Sponsors: The Pacific Institute for the Mathematical Sciences, Univ. of Calgary.

Scientific Program Committee: G. Gladwell (Univ. of Waterloo), K. Glover (Cambridge Univ.), P. Lancaster, chair (Univ. of Calgary), H. Langer (Tech. Univ. of Vienna), J. Marsden (Caltech), J. Wickert (Carnegie Mellon).

Local Organizers: P. Lancaster, e-mail: lancaste@ucalgary.ca; J. Longworth, e-mail: pims@ucalgary.ca; M. Paulhus, e-mail: paulhusm@math.ucalgary.ca.

Information: <http://www.math.ucalgary.ca/pims/vibrations/index.html>.

27–October 1 **IMA Workshop: Low-Speed Combustion**, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 595)

October 1999

October **National Conference on Issues Related to Doctoral Programs in Mathematics Education**, University of Missouri, Columbia, Missouri. (Jan. 1999, p. 71)

2–3 **AMS Eastern Sectional Meeting**, Providence College, Rhode Island. (Sept. 1997, p. 1031)

Information: W. Drady, e-mail: wsd@ams.org.

* 2–3 **24th Cascade Topology Seminar**, University of British Columbia, Vancouver, British Columbia.

Information: rolfsen@math.ubc.ca.

4–8 **International Workshop on General Topological Algebras**, Tartu, Estonia. (May 1999, p. 595)

* 4–8 **MSRI Workshop on Constructive Galois Theory**, MSRI, Berkeley, California.

Topics: As part of the fall 1999 program in Galois Groups and Fundamental Groups, MSRI will host a one-week workshop in Constructive Galois Theory, October 4–8, 1999. Topics of the workshop include:

- Construction of Galois extensions of function fields using “rigidity” and, more generally, moduli spaces for covers of the Riemann sphere and associated monodromy action of the braid group; realizations of simple groups and classical groups as Galois groups over number fields; constructions of Galois covers of curves over finite fields; computational Galois theory.

- Patching constructions using formal and rigid geometry, deformations (liftings) of given Galois covers. Applications to Galois groups and fundamental groups in characteristic p and for higher-dimensional varieties.

- Galois embedding problems: realizations of composite groups as Galois groups over global fields, realization and structure of profinite Galois extensions, connections to rigid analytic and formal geometric constructions.

- Connections with field arithmetic: constructions over fields with special properties (algebraically closed, complete, henselian, PAC, hilbertian, etc.).

- Invariant theory of finite groups, generic polynomials, and Noether’s method.

Financial Support: A limited amount of

funding is available for partial support of people wishing to attend. Students, recent Ph.D.’s, women, and minorities are particularly encouraged to apply. To apply for funding, send a letter explaining your interest in the workshop together with a vita or bibliography and a budget for travel/living expenses. If you are a student, also solicit a letter from a faculty advisor. All information should be received by July 6, 1999.

Information: Send mail to cgt@msri.org, or visit <http://www.msri.org/>.

4–8 **Workshop on the Complexity of Multivariate Problems**, Hong Kong Baptist University, Hong Kong, China. (Jan. 1999, p. 71)

6–9 **New Trends in the Calculus of Variations**, Centro de Matemática e Aplicações Fundamentais da Universidade de Lisboa, Lisbon, Portugal. (Mar. 1999, p. 380)

8–10 **AMS Central Sectional Meeting**, University of Texas, Austin. (Sept. 1997, p. 1031)

Information: W. Drady, e-mail: wsd@ams.org.

10–14 **National Conference on Algebra VII**, Beijing Normal Univ., Beijing, China. (May 1999, p. 595)

11–13 **IMA Workshop: Fires**, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 595)

* 11–15 **MSRI Workshop on Galois Actions and Geometry**, MSRI, Berkeley, California.

Topics: As part of the fall 1999 program in Galois Groups and Fundamental Groups, MSRI will host a one-week workshop in Galois Actions and Geometry, October 11–15, 1999. The themes of the week-long workshop will include:

- Galois and braid group actions on fundamental groups of marked curves, Galois actions on fundamental groups of moduli spaces of curves, the Grothendieck-Teichmüller group.

- Fundamental groups and geometry of moduli spaces; generalized Hurwitz spaces, modular towers; families of covers.

- Connection with abelian varieties, Iwasawa theory, and modular forms; Galois representations and their images; nilpotent and motivic aspects.

- Grothendieck’s anabelian conjectures, fundamental groups of hyperbolic varieties and anabelian neighborhoods of points, conjectures on sections and rational points.

- Galois cohomology; connections to embedding problems; fields of moduli of varieties and covers, descent.

- Arithmetic of covers, related group theory, exceptional covers, special fibers, semistable reduction, p -adic uniformization theory of curves.

Financial Support: A limited amount of funding is available for partial support of people wishing to attend. Students, recent Ph.D.’s, women, and minorities are particularly encouraged to apply. To apply for funding, send a letter explaining your inter-

est in the workshop together with a vita or bibliography and a budget for travel/living expenses. If you are a student, also solicit a letter from a faculty advisor. All information should be received by July 12, 1999.

Information: Send mail to gactions@msri.org, or visit <http://www.msri.org/>.

* 12–16 **A Conference in Analysis**, The Ohio State University, Columbus, Ohio.

Organizing Committee: V. Bergelson, D. Burghel, J. Diestel, and P. Nevai.

Purpose: The purpose of the conference is to bring together distinguished mathematicians in a number of areas of analysis such as complex analysis, harmonic analysis, operator theory, partial differential equations, Banach spaces, and approximation theory with young researchers and graduate students for a broad discussion of problems, exchange of ideas, and fostering of new collaborations. The conference topics are closely related to the research subjects which our friend and colleague Boris Mityagin has studied during his forty-year-long mathematical career.

Invited Speakers: R. A. DeVore, P. Enflo, C. I. Foias, T. W. Gamelin, E. A. Gorin, V. Havin, G. M. Henkin, W. B. Johnson, B. Korenblum, V. Lin, G. G. Lorentz, V. Milman, N. K. Nikolski, S. Novikov, D. Pallaschke, A. Pelczynski, G. Pisier, E. M. Stein, V. M. Tikhomirov, and V. Zahariuta.

Funding: Subject to availability of funds, we plan to provide partial financial support for some of the participants. Priority will be given to graduate students and recent Ph.D.’s.

Information: Those who wish to be placed on the e-mail list of the conference should send a message to nevai@math.ohio-state.edu. Up-to-date information will be available at <http://www.math.ohio-state.edu/>.

14–15 **IMA Minisymposium: Mathematical and Computational Strategies for Simplifying Complex Kinetics**, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 595)

15–17 **AMS Southeastern Section Meeting**, University of North Carolina, Charlotte, North Carolina. (Nov. 1998, p. 1378)

* 16–17 **West Coast Operator Algebra Symposium**, University of Victoria, Victoria, British Columbia.

Information: putnam@math.uvic.ca.

* 21–26 **Workshop on Stochastics and Quantum Physics**, University of Aarhus, Aarhus, Denmark.

Organizers: O. E. Barndorff-Nielsen (Aarhus) and K. Molmer (Aarhus).

Focus: The workshop will focus on some of the areas where concepts and techniques from stochastics (i.e., probability and mathematical statistics) are or seem likely soon to become of real quantum physical importance. By bringing together leading physicists and mathematicians having an active

interest in the themes of the workshop, it is hoped to foster fruitful discussions and collaboration on the role and use of stochastics in quantum physics.

Topics and Speakers: Main themes of the workshop are listed below (confirmed keynote speakers are in parentheses): Laser physics/Quantum optics (F. Bardou, H. Carmichael, G. Mahler); Quantum stochastic processes (A. Barchielli, V. P. Belavkin, G. Lindblad); Wick products, white noise analysis and Malliavin calculus (B. Oksendal); The role of generalized measurements and quantum statistical inference (R. Gill, S. Massar, H. Wiseman); Quantum information (P. Hoeyer, A. S. Holevo, A. Peres, S. Popescu).

Deadline: Registration is to be done before September 1, 1999.

Information: The workshop Web page can be found at <http://www.maphysto.dk/events/QuantumStoc99/>; from there it is also possible to register.

* 22-23 **19th Annual Southeastern-Atlantic Regional Conference on Differential Equations**, University of Richmond, Richmond, Virginia.

Scope: The primary purpose of the conference is to promote research and education in the field of differential equations, i.e., ordinary and partial differential equations and functional differential equations, numerical techniques and their applications to biology, engineering, and physics. These meetings bring together established and new researchers and advanced graduate students for an exchange of ideas and discussions on the diverse aspects of differential equations.

Topics: The conference will consist of a series of three plenary one-hour lectures and sessions for contributed papers. Topics presented during these conferences have been diverse and have provided a unique opportunity to see the variety of problems in which differential equations play a critical role. Among subjects presented have been ordinary and partial differential equations, integral and functional equations, numerical methods, and applications to the sciences and engineering.

Invited Speakers: M. Cheney (Rensselaer Polytechnic Institute), P. Lax (Courant Institute, New York Univ.), G. Webb (Vanderbilt Univ.).

Contributed Talks: There will be sessions of contributed talks. Deadline for submission of abstracts for contributed talks is September 30, 1999.

Financial Assistance: Contingent on NSF funding, some financial assistance may be available to offset travel and housing expenses for graduate students and recent Ph.D. recipients. Requests postmarked by September 18, 1999, are guaranteed consideration. Eligible persons who belong to currently underrepresented groups are especially encouraged to apply to the conference for financial assistance.

Information: Updated information can be

obtained at the conference Web site, <http://www.mathcs.richmond.edu/searchde/searchde.html> or by contacting L. Caudill, SEARCDE Coordinator, Dept. of Mathematics and Computer Science, Univ. of Richmond, Richmond, VA 23173; tel: 804-289-8083; fax: 804-287-6444; e-mail: lcaudill@richmond.edu.

* 22-23 **The Twenty-First Midwest Probability Colloquium**, University of Cincinnati, Cincinnati, Ohio.

Organizing Committee: A. de Acosta (chair), S. Lalley, V. Wihstutz.

Invited Speakers: K. Alexander (Univ. of Southern California), W. Li (Univ. of Delaware), M. Yor (Univ. Pierre et Marie Curie, Paris).

Support: Funding has been requested from the National Science Foundation for the support of participants, especially younger investigators and underrepresented groups. We expect to make grants to cover all or part of the hotel charges. To apply for support, please contact the local conference: J. Mitro (mitroj@math.uc.edu or 513-556-4055) by October 1, 1999.

22-24 **IMA "Hot Topics" Workshop: Scaling Phenomena in Communication Networks**, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 595)

23-24 **Midwest Partial Differential Equations Seminar, Fall 1999**, University of Illinois, Urbana-Champaign, Illinois. (Mar. 1999, p. 380)

* 25-29 **MSRI Workshop on Hopf Algebras**, MSRI, Berkeley, California.

Topics: As part of the yearlong program in Noncommutative Algebra, MSRI will host a one-week workshop on Hopf Algebras, October 25-29, 1999.

The last ten years have seen a surge of activity in Hopf algebras. In particular, a number of conjectures of Kaplansky from 1975 on finite-dimensional Hopf algebras have been solved; as a consequence there has been some progress on the classification of semisimple Hopf algebras and on the structure of pointed Hopf algebras. There has also been much progress on actions and coactions of Hopf algebras, in particular on Hopf Galois extensions.

It is striking that many new methods have been used in these results; for example, modular categories and braid theory, representation theory, algebraic geometry, and Lie methods such as Cartan matrices. Thus techniques from quantum groups can now help on these more classical Hopf algebra questions.

Focus: The workshop will focus on these new results and methods in hopes of making further progress in describing the structure of Hopf algebras and on their actions and coactions. As Hopf algebras now appear as invariants of a number of other mathematical structures, such progress would be of interest in other areas.

Financial Support: A limited amount of

funding is available for partial support of people wishing to attend. Students, recent Ph.D.'s, women, and minorities are particularly encouraged to apply. To apply for funding, send a letter explaining your interest in the workshop together with a vita or bibliography and a budget for travel/living expenses. If you are a student, also solicit a letter from a faculty advisor. All information should be received by July 26, 1999.

Information: Send mail to hopfalg@msri.org, or visit <http://www.msri.org/>.

November 1999

* 1-5 **MSRI Workshop on The Mathematics of Imaging**, MSRI, Berkeley, California.

Topics: Mathematics plays an important role in a variety of imaging problems in the physical and biomedical sciences as well as in many other areas, including remote sensing, computer vision, speech and image compression, and the general area of signal processing. Important contributions have resulted from the interaction between mathematicians working in inverse problems and engineers and other practitioners in these applied fields. New technological advances have opened up a large number of opportunities for increased interaction of this kind. We propose a conference that will bring together mathematicians and scientists with a common interest in these problems and techniques.

Focus: This workshop will bring together mathematicians and a number of workers in these various fields. An effort will be made to have lectures of an introductory nature. The program will seek to involve mathematicians with these applications and to explore relevant and emerging mathematical techniques in these areas. The prospective invited speakers are at the forefront of some of the following fields: chemistry, geophysics, medical imaging, nondestructive evaluation, and signal processing.

Speakers: J. Berryman (Lawrence Livermore Laboratory), G. Beylkin (Colorado, Boulder), L. Borcea (Rice), T. Budinger (Berkeley), M. Cheney (RPI), J. Claerbout (Stanford), R. Coifman (Yale), D. Colton (Univ. Delaware), I. Daubechies (Princeton), H. Hauptman (Buffalo), G. Herman (Penn), D. Ingerman (MIT), D. Isaacson (RPI), J. Keller (Stanford), J. McLaughlin (RPI), D. Mumford (Brown), F. Natterer (Univ. of Muenster, Germany), C. Nolan (UW), S. Osher (UCLA), G. Papanicolaou (Stanford), S. Patch (GTE), A. Pines (Berkeley), F. Santosa (Minnesota), J. Sethian (Berkeley), W. Symes (Rice), J. Zubelli (IMPA).

Information: Send mail to imaging@msri.org, or visit <http://www.msri.org/>.

* 2-5 **Workshop on Hilbert's 10th Problem, Relations to Arithmetic and Algebraic Geometry**, University of Gent, Gent, Belgium.

Scientific Committee: J. Denef, L. Lipsitz, T. Pheidas, and J. Van Geel.

Theme: The main theme of the meeting

will be the relation between decidability problems, arithmetic, and algebraic geometry. The scientific committee hopes that bringing together number theorists, algebraic geometers, and logicians will provoke discussions and set directions for future research related to Hilbert's original question.

Topics: Apart from selected research lectures presenting recent results in the field, there will be three or four series of lectures of an instructional character selected from among the following topics: Work on Hilbert's 10th problem, for various rings and fields, over the past decades; some model theoretic aspects and related decidability problems; decidability for certain generic diophantine problems and for fragments of arithmetic; the algebraic geometric structure of Diophantine families; Mazur's conjectures on the topology of rational points; computational aspects; work of Rojas on (un)computability of bounds for integral points and the $\exists\forall\exists$ diophantine problem; complexity of diophantine geometry.

Information: People interested in the meeting should contact the local organizers by e-mail, hilbrt10@cage.rug.ac.be, or by ordinary mail to J. Van Geel or K. Zahidi, Univ. of Gent, Department of Pure Mathematics, Galglaan 2, B-9000 Gent, Belgium; fax: 32-0-9-264-49-93. Although we invite all people who are interested in the topics to apply, the number of participants will be limited in order to maintain the character of the meeting. Further information on the workshop and its location can be found at <http://cage.rug.ac.be/~hilbrt10/hilbert10.html>. There one can also find an updated list of participants.

5 IMA Tutorial: High-Speed Combustion, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 596)

8-12 IMA Workshop: High-Speed Combustion in Gaseous and Condensed-Phase Energetic Materials, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 596)

29-December 3 Group Theory and Computation, University of Sydney, Sydney, Australia. (May 1999, p. 596)

December 1999

* **2-4 Computational and Mathematical Methods in Music**, Vienna, Austria.

Aim: The aim of this conference is to bring together mathematicians interested in or working on subjects of relevance to music and musicians who make use of computational methods or would like to learn more about possibilities offered by mathematical approaches.

Topics: Among the topics to be covered are physical modelling, optimization of instruments, time-frequency analysis methods, the transcription problem, restoration of old musical recordings, or AI methods for studying musical expression. Contribu-

tions should emphasize the connections between the two fields. Thus, contributions on computer music per se or describing only efficient implementations are discouraged.

Organizers: The Mathematics Department of the Univ. of Vienna, the Austrian Mathematical Society, and the Austrian Academy of Sciences.

Local Arrangements: H. G. Feichtinger (fei@tyche.mat.univie.ac.at) and C. Kratenthaler (krat@pap.univie.ac.at).

Speakers: G. DePoli (Padua), W. Fitzgerald (Cambridge), J. C. Risset (Marseille), X. Serra (Barcelona), G. Wakefield (Ann Arbor).

Deadline: The deadline for the submission of posters or short talks and other contributions is August 20, 1999, but earlier submission is encouraged.

Information: Contact H. G. Feichtinger (fei@tyche.mat.univie.ac.at), or visit the Web page <http://tyche.mat.univie.ac.at/~diderot/> for details. This conference is connected with the EMS Diderot Mathematical Forum, to be held Dec. 3-4 in parallel in Lisbon, Paris, and Vienna under the general theme "Mathematics and Music". For general information concerning this forum you may also contact M. Chaleyat-Maurel (mcm@ccr.jussieu.fr).

20-22 Seventh IMA International Conference on Cryptography and Coding, Royal Agricultural College, Cirencester, United Kingdom. (May 1999, p. 596)

* **31-January 3 Golden Jubilee International Conference on Mathematics (GJICM)**, Lucknow, India.

Organizers: B. G. Parishad and Department of Mathematics and Astronomy, Lucknow Univ.

Aim: To mark the 50th year of Bharata Ganita Parishad and for ushering in the Year of Mathematics.

Special Sessions: Algebra, topology, and analysis; mathematical modelling and computer applications; mathematics through the ages; recent developments in astronomy. Besides invited talks there will be paper reading sessions also.

Registration: By October 30, 1999.

Information: S. Datta, Dept. of Mathematics and Astronomy, Lucknow Univ., Lucknow 226007, India; e-mail: bgp11@hotmail.com or sdatta@lw1.vsnl.net.in. For flyer and registration form: <http://www.angelfire.com/ma2/bgpf/>.

January 2000

* **3-7 Fifth International Conference on Difference Equations and Applications**, Univ. de la Frontera, Temuco, Chile.

Organizers: Univ. del Bio-Bio., Univ. de Chile, Univ. de La Frontera, Univ. de Los Lagos, Univ. de Oriente (Venezuela).

Invited Speakers: (to be confirmed): O. Arino (Pau, France), A. Arneodo (CNRS, France), B. Aulbach (Augsburg, Germany), R. Devaney (Boston), E. Doedel (Montreal, Canada), S. Elaydi (San Antonio), W. Gautschi (West

Lafayette, IN.), K. Gopalsamy (Adelaide, Australia), T. Hallam (Tennessee), T. Immink (Groningen, The Netherlands), D. Knuth (Stanford), G. Ladas (Kingston, RI), D. Lubinsky (Johannesburg, South Africa), J. Mallet-Paret (Providence, RI), R. May (Oxford, UK), K. Nishimura (Kyoto, Japan), J. Palis (Rio de Janeiro, Brazil), G. Sell (Minneapolis), A. Sharkovsky (Kiev, Ukraine), D. Siljak (Santa Clara), H. Smith (Tempe, AZ), E. Tirapegui (Santiago, Chile), V. Totik (Szeged, Hungary), W. Van Assche (Leuven, Belgium), A. Vanderbauwhede (Gent, Belgium), F. Van-Diejen (Santiago, Chile), J. Yorke (College Park, MD).

Special Sessions: A special session on "Open Problems and Conjectures" (chair: G. Ladas, Kingston, RI) will take place during the conference.

Topics: The topics covered in this conference will include, but are not limited to, the following: General theory of difference equations, asymptotic behavior, oscillation theory, stability theory, chaos, discrete dynamical systems, orthogonal polynomials, numerical methods, approximation theory, control theory, stochastic processes, industrial mathematics and mathematical engineering, mathematical biology, mathematical mechanics.

Registration Fee: The registration fee is US\$180 if paid before September 15, 1999. After this date it will be US\$200.

Information: Contact: M. Pinto J., Departamento de Matemáticas, Facultad de Ciencias, Universidad de Chile, Casilla 653, Santiago, Chile; e-mail: pintoj@abello.dic.uchile.cl; J. López Fenner, Departamento de Matemáticas y Estadística, Facultad de Ingeniería, Universidad de La Frontera, Casilla 54-D, Temuco, Chile; e-mail: jlopez@ufro.cl; S. Elaydi, Department of Mathematics, Trinity University, San Antonio, Texas 78212; e-mail: selaydi@trinity.edu. WWW: <http://www.imat.ufro.cl/ICDEA2T/>.

* **10-14 MSRI Workshop on Combinatorial Algebra**, MSRI, Berkeley, California.

Topics: As part of the yearlong program in Noncommutative Algebra, MSRI will host a one-week workshop on Combinatorial Algebra, January 10-14, 2000.

The term "Combinatorial Algebra" comes from Combinatorial Group Theory, which traditionally focuses on such topics as (1) groups presented by generators and relators, (2) growth in groups, (3) The Burnside Problem, and (4) computational and algorithmic aspects. The conference will be concerned with these topics in the context of Lie algebras and related groups. More specifically, we will consider:

- Lie algebras and superalgebras of finite Gelfand-Kirillov dimension and their relations with conformal, vertex, and superconformal algebras;
- pro-p and pronipotent groups of finite width;
- problems related to The Restricted Burnside Problem;

- probabilistic aspects of Group Theory; and
- computational and algorithmic problems. This part of the program will greatly benefit from the presence of specialists in noncommutative algebraic geometry and in Hopf algebras.

Financial Support: A limited amount of funding is available for partial support of people wishing to attend. Students, recent Ph.D.'s, women, and minorities are particularly encouraged to apply. To apply for funding, send a letter explaining your interest in the workshop together with a vita or bibliography and a budget for travel/living expenses. If you are a student, also solicit a letter from a faculty advisor. All information should be received by October 11, 1999.

Information: Send mail to combalg@msri.org, or visit <http://www.msri.org/>.

17-21 **International Conference on Mathematical Analysis and its Applications, 2000 (ICMAA2000)**, National Sun Yat-sen University, Kaohsiung 804, Taiwan, R.O.C. (Jan. 1999, p. 71)

* 17-22 **Workshop on Computational Stochastics**, University of Aarhus, Denmark.

Topics: Computational stochastics is a new and expanding area of stochastics, dealing with computational methods of analyzing complex mathematical and statistical models. The workshop intends to reveal and discuss the potential strength and impact of this new discipline in a variety of applications.

Organizers: S. Asmussen (Lund) and E. B. Vedel Jensen (Aarhus).

Invited Speakers: A. Baddeley (Perth): Conditional simulation; P. Donnelly (Oxford): Computational inference in genetics; I. Dryden (Leeds): Stochastic deformation; P. Glynn (Stanford): Simulation methodology in applied probability; O. Mouritsen (DTU, Copenhagen): The third science—the computer experiment; W. Stewart (Raleigh, NC): Numerical methods for Markov chains. **Deadline:** Submission of contributed papers: before October 1, 1999. Registration: before November 15, 1999.

Information: The workshop Web page can be found at: <http://www.maphysto.dk/events/CompStoc2000/>. From there it is also possible to register.

19-22 **Joint Mathematics Meeting**, Sheraton Washington Hotel & Omni Shoreham Hotel, Washington, District of Columbia. (Sept. 1997, p. 1031)

21-22 **1999-2000 ASL Winter Meeting**, Washington, DC. (Jan. 1999, p. 72)

26-30 **IMA Workshop: Confinement and Remediation of Environmental Hazards**, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 596)

February 2000

* 7-11 **MSRI Workshop on The Mathematics**

of Quantum Computation, MSRI, Berkeley, California.

Topics: In the past years, quantum computation has emerged as the “presumptive model” among proposals of new paradigms for computing. Quantum computing seems to provide a model for the computational capacity of any physically plausible finite-dimensional quantum mechanical system, including the modular functors of topological field theories. According to the philosophy of renormalization we might expect BQP to effectively model any computation that could be effected even in an infinite-dimensional field theory. Quantum computing is still a very young field, and our understanding of its power compared to other models of computational complexity is still very preliminary, the most notable success being Shor’s factoring algorithm.

Goal: The goal of this workshop is to focus on the more mathematical aspects of quantum computation to bring the central challenges of quantum computation to the attention of mathematicians. The workshop will discuss many mathematical and physical topics impinging on quantum computing and quantum information theory, ranging from topology to representation theory to statistical physics. The workshop will be organized around a sequence of expository talks by experts in the area.

Prospective Speakers: I. Chuang (IBM Almaden), M. Freedman (Microsoft Research), R. Jozsa (Plymouth Univ., England), P. Shor (Bell Laboratories), U. Vazirani (U.C. Berkeley), N. Wallach (U.C. San Diego), A. Yao (Princeton Univ.).

Information: Send email to qcomputing@msri.org, or visit <http://www.msri.org/>.

9-13 **IMA Workshop: Resource Recovery**, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 596)

* 14-25 **MSRI Workshop on the Interactions between Algebraic Geometry and Noncommutative Algebra**, MSRI, Berkeley, California.

Topics: As part of the yearlong program in Noncommutative Algebra, MSRI will host a two-week workshop on Interactions between Algebraic Geometry and Noncommutative Algebra, February 14-25, 2000. In recent years there have been a number of important applications of techniques and ideas from algebraic geometry to noncommutative algebra, and the aim of this conference will be to examine these applications and their interactions. Among the areas of concentration with which the conference will be concerned are the following topics and their interactions:

- noncommutative projective algebraic geometry and the study of noncommutative graded algebras;
- geometric aspects of algebraic quantum groups, derived categories and quantization;
- geometric aspects of the representation theory of quivers; and

- rings of differential operators and invariant theory.

Financial Support: A limited amount of funding is available for partial support of people wishing to attend. Students, recent Ph.D.'s, women, and minorities are particularly encouraged to apply. To apply for funding, send a letter explaining your interest in the workshop together with a vita or bibliography and a budget for travel/living expenses. If you are a student, also solicit a letter from a faculty advisor. All information should be received by November 15, 1999.

Information: Send mail to interact@msri.org, or visit <http://www.msri.org/>.

20-22 **International Conference on Stochastic Optimization: Algorithms and Applications**, University of Florida, Center for Applied Optimization, Gainesville, Florida. (Jan. 1999, p. 72)

March 2000

6-17 **Homogenization and Effective Media Theories**, Mathematical Sciences Research Institute, Berkeley, California. (Sept. 1998, p. 1053)

15-19 **IMA Workshop: Air Quality Engineering**, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 596)

16-18 **Seminar on Stochastic Processes, 2000**, The University of Utah, Salt Lake City, Utah. (Feb. 1999, p. 278)

20-31 **Superconvergence in Finite Element Methods**, Mathematical Sciences Research Institute, Berkeley, California. (Sept. 1998, p. 1053)

April 2000

1-2 **AMS Eastern Section Meeting**, University of Massachusetts, Lowell, Massachusetts. (Nov. 1998, p. 1378)

7-9 **AMS Central Sectional Meeting**, University of Notre Dame, Notre Dame, Indiana. (Sept. 1997, p. 1031)

Information: W. Drady, e-mail: wsd@ams.org.

* 9-16 **The Klee-Grunbaum Festival of Geometry**, Ein Gev, Israel.

Focus: The festival will deal with various aspects of the theory of convexity in Euclidean spaces of a discrete, applied, combinatorial, and computational nature.

Information: Information can be obtained from the organizer: J. Zaks, Dept. of Mathematics, Univ. of Haifa, Haifa, Israel 31905; e-mail: jzaks@math.haifa.ac.il.

14-16 **AMS Southeastern Section Meeting**, University of Southwestern Louisiana, Lafayette, Louisiana. (Mar. 1999, p. 380)

16-19 **FRactal 2000: “Complexity and Fractals in the Sciences”**, 6th International Multidisciplinary Conference, Singapore. (May 1999, p. 596)

17-28 **Elastic Shells: Modeling, Analysis**

and Numerics, Mathematical Sciences Research Institute, Berkeley, California. (Sept. 1998, p. 1054)

May 2000

1-5 **IMA Workshop: Dispersive Corrections to Transport Equations**, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 596)

*10-12 **ICNPAA-2000, Third International Conference on Nonlinear Problems in Aviation and Aerospace (Methods and Software)**, Daytona Beach, Florida.

Sponsors: IFNA, IFIP, IEEE, AAIL, AICL.

Topics: Conference sponsors seek a spectrum of theoretical, computational, and experimental inquiries concerned with: aeroacoustics, adaptive and smart structures, aerodynamics, computational fluid dynamics, air traffic control design, nonlinear filtering, artificial intelligence, aviation management, atmospheric dynamics, atmospheric sciences, atmospheric flight mechanics, computational structures, propulsion and combustion, human factors modeling, multidisciplinary design, navigation, guidance, stability and control, nonlinear system modeling and chaos, neural networks, neural, fuzzy control, numerical simulation, parallel computing, cryptography and computer security, high-performance computing, pattern recognition, image processing, virtual reality, optimization, reliability, validation and verification. Topics concerned with linear problems are also welcome.

Advisory Committee: K. T. Alfriend (USA), A. V. Balakrishnan (USA), P. Borne (France), E. A. Fedosov (Russia), P. Friedman (USA), N. Goto (Japan), L. Gruyitch (France), I. D. Jacobson (USA), S. Joshi (USA), D. Lainiotis (USA), V. Lakshmikantham (USA), J. L. Lions (France), V. Matrosov (Russia), A. Miele (USA), V. Modi (Canada), Y. Y. Nie (China), K. Ninomiya (Japan), S. Sivasundaram (USA), S. Sliwa (USA), K. Tsuchiya (Japan), S. N. Vassilyev (Russia), M. Vidyasagar (India), A. Zelweeger (USA).

Special Events: Trips to Kennedy Space Center, Disney World, EPCOT Center, and Universal Studios will be offered, as well as a dinner boat cruise and greyhound racing.

Deadlines: For organizing sessions: October 15, 1999; abstracts: January 15, 2000.

Information: Conference chairman: S. Sivasundaram, Dept. of Computing and Math., Embry-Riddle Aeronautical Univ., Daytona Beach, FL 32114; e-mail: siva@db.erau.edu; fax: 904-226-7050; Web: <http://erau.db.erau.edu/~siva/conference.html>.

17-20 **Trends in Approximation Theory, An International Symposium Celebrating the 60th Birthday of Larry L. Schumaker, held in conjunction with the 15th Annual Shanks Lecture**, Vanderbilt University, Nashville, Tennessee. (May 1999, p. 596)

18-19 **IMA Tutorial: Simulation of Trans-**

port in Transition Regimes, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 597)

*18-21 **Year 2000 International Conference on Dynamical Systems and Differential Equations**, Kennesaw State University, Kennesaw, Georgia.

Program: The conference will consist of plenary one-hour lectures, 30-minute lectures in special sessions, and 20-minute lectures in contributed sessions.

Topics: Papers may address a broad range of research areas of current interest in the fields of differential equations and dynamical systems relevant to theory or applications.

Invited Plenary Speakers: (* indicates tentativeness) J. Bona, H. Brezis*, G. Buttazzo, C. Y. Chan*, F. Lin, R. Temam.

Organizing Committee: R. Biggers, M. Burke, J. Du, S. Ellermeyer, P. Laval, S. Sims, T. Straley, V. Watson.

Scientific Committee: S. Hu (chair).

Participation: To present a talk, you need to submit an abstract, full mailing and e-mail addresses, along with phone and fax numbers (if available) before the deadline.

Proceedings: The proceedings will be published. All papers will be reviewed for their acceptance.

Deadlines: Abstract: February 15, 2000. Pre-registration by March 15, 2000: US\$100 (Students: \$50); registration after March 15, 2000: US\$120 (Students: \$60). Banquet will cost US\$20, for which payment must be received by May 1, 2000.

Funding: A proposal will be submitted to the National Science Foundation for funds to assist graduate students and young researchers.

Information: J. Du, Dept. of Math, Kennesaw State Univ., Kennesaw, GA 30144; fax: 770-423-6629; tel: 770-423-6669; e-mail: jdu@ksumail.kennesaw.edu; Web address: <http://science.kennesaw.edu/math/y2kdsde/>; or S. Hu at <http://math.smsu.edu/~hu>, e-mail: shh209@mail.smsu.edu.

21-26 **Millennial Conference on Number Theory**, University of Illinois, Urbana, Illinois. (May 1999, p. 597)

22-26 **IMA Workshop: Simulation of Transport in Transition Regimes**, IMA, University of Minnesota, Minneapolis, Minnesota. (May 1999, p. 597)

*23-27 **Summer Symposium in Real Analysis XXIV**, University of North Texas, Denton, Texas.

Organizers: P. Humke and D. Mauldin.

Speakers: Main speakers to be announced shortly.

*28-June 2 **Nonlinear Analysis, 2000**, Courant Institute, New York, New York.

Organizing Committee: Y. Guo (Brown Univ.), B. Jerrard (Univ. of Illinois), T. Kriecherbauer (L. M. Univ. Munich), N. J. Mauser (Univ. Vienna), M. Pugh (Univ. of Pennsylvania).

Focus: This conference is dedicated to the state of the art in nonlinear analysis and its applications, with emphasis on differential equations. Applications will include materials science, earth science, biology, finance, and scientific computing.

Goal: Our goal is to bring together the rising generation of scientists from all over the world; to let them highlight a sample of their work, meet each other, and talk science. Senior scientists are welcome to attend, space permitting.

Presentations: All 60-70 talks will be short presentations by promising junior scientists. In addition there will be open discussion sessions and small working groups to discuss topics and approaches in more detail.

Information: N. J. Mauser, e-mail: mauser@courant.nyu.edu.

*29-June 9 **Foliations: Geometry and Dynamics Revisited**, Banach Center, Warsaw, Poland.

Purpose: Exchange of scientific information among specialists in the theory of foliation and related topics, in particular in the area of relations between this theory, differential geometry, dynamical systems, and ergodic theory.

The following new announcements will not be repeated until the criteria in the next to the last paragraph at the bottom of the first page of this section are met.

June 2000

*12-15 **Integral Methods in Science and Engineering (IMSE2000)**, Banff Conference Centre, Banff, Alberta, Canada.

Topics: Participation is open to all scientists and engineers whose work makes use of analytic and numerical methods, integral equations, ordinary and partial differential equations, finite element methods, conservation laws, hybrid approaches, vortex methods, etc.

Hosted By: Department of Mechanical Engineering, University of Alberta, Edmonton, Alberta, Canada.

Information: For further information and/or to be added to a mailing list, contact: P. Schiavone, Department of Mechanical Engineering, University of Alberta, 4-9 Mechanical Engineering Building, Edmonton, Alberta, T6G 2G8 Canada; e-mail: P.Schiavone@ualberta.ca; tel: 780-492-3638; fax: 780-492-2200; Web: <http://www.mece.ualberta.ca/IMSE2000/>.

*18-21 **MCS 2000 International Conference on Monte Carlo Simulation**, Monte Carlo, Monaco.

Organizers: W. Kliemann (Iowa State Univ., Iowa), G. I. Schuëller (Leopold Franzens Univ., Austria), and P. D. Spanos (Rice Univ., Texas).

Purpose: The International Conference on Monte Carlo Simulation will serve as a

forum for discussion for engineers, mathematicians, and other professionals who are interested in the theoretical and practical aspects of Monte Carlo Simulation. It will provide a unique opportunity for exchanging ideas on the status of MSC procedures as they are applied to a broad spectrum of problems of a theoretical and applied nature.

Topics: The conference theme includes: algorithms for random number generation; methods for solutions (spectral simulation, direct solutions of stochastic differential equations, numerics of partial differential equations, etc.); practical engineering applications.

Deadlines: December 15, 1999: Abstracts of about 300 words to be sent via e-mail to mechanik@uibk.ac.at; January 15, 2000: Notification of accepted papers; March 31, 2000: Draft papers due; June 18, 2000: Final papers due. The authors will have the option of requesting review of their papers for publication in the *Journal of Probabilistic Engineering Mechanics*.

Information: See the conference Web page at http://www.uibk.ac.at/c/c8/c810/conf/mcs_2000.html.

Sponsor: The conference is sponsored by The International Association for Structural Safety and Reliability (IASSAR).

July 2000

* 3-7 **Sixth International Conference on p-Adic Analysis**, Ioannina, Greece.

Topic: (Functional) analysis over valued fields other than \mathbb{R} or \mathbb{C} .

Scientific Committee: A. Katsaras (Ioannina, Greece), W. Schikhof (Nijmegen, Netherlands), L. Van Hamme (Brussels, Belgium).

Participants: (preliminary) J. Aguayo (Chile), J. Bayod (Spain), E. Beckenstein (USA), J. Araujo (Spain), A. Boutabaa (France), G. Christol (France), S. Caenepeel (Belgium), B. Dragovich (Yugoslavia), B. Darrar (France), M. Endo (Japan), A. Escassut (France), T. Gilsdorf (USA), G. Ren (USA), N. De Grande-de Kimpe (Belgium), L. Haddad (France), A. Katsaras (Greece), A. Kubzdela (Poland), T. Kiyosawa (Japan), A. Khrennikov (Sweden), J. Kakol (Poland), A. Kochubei (Ukraine), N. Mainetti (France), L. Narici (USA), P. N. Natarajan (India), S. Navarro (Chile), H. Ochsenius (Chile), C. Perez-Garcia (Spain), J. Prolla (Brazil), A. M. Robert (Switzerland), G. Rangan (India), H. Reichel (Austria), M. Sarmant (France), S. Yamada (Japan), W. Schikhof (Netherlands), A. van Rooij (Netherlands), S. Vega (Spain), L. Van Hamme (Belgium), F. Woodcock (England), V. Vladimirov (Russia), K. Boussaf (France), V. Srinivasan (USA).

Information: A. K. Katsaras, Dept. of Mathematics, Univ. of Ioannina, 45110 Ioannina, Greece; e-mail: akatsar@cc.uoi.gr.

* 9-15 **AGRAM Conference on Abelian Groups, Rings and Modules**, The University of Western Australia, Perth, Australia.

Sponsors: Aust. Math. Soc. and Dept. of Mathematics, UWA.

Scientific Committee: L. Fuchs (Tulane), R. Goebel (Essen), K. Rangaswamy (Univ. of Colorado), C. Vinsonhaler (Univ. of Conn).

Focus: The AGRAM Conference is an international conference on Abelian groups, rings, and modules with speakers from Australasia, the USA, Eastern and Western Europe, Central and South America. It will provide an opportunity for young researchers working in those fields to make scholarly contact with internationally renowned experts.

Information: Contact P. Schultz, Department of Mathematics, UWA, Nedlands, 6009, Australia; e-mail: schultz@maths.uwa.edu.au; Web: <http://WWW/Staff/schultz/AGRAM.html>.

* 17-22 **I Colloquium on Lie Theory and Applications**, E.T.S.I. Telecomunicaciones, Vigo, Spain.

Aim: The colloquium will be devoted to all aspects of Lie theory.

Scientific Program: The scientific program includes three courses of 3 hours each, delivered by D. V. Alekseevsky, A. T. Fomenko, and M. Scheunert; eleven invited lectures; and several short communications (of 15 minutes each).

Invited Speakers: The remaining invited speakers are the following: S. Benayadi, M. Bordemann, V. Cortes, A. Gonzalez-Lopez, Y. B. Hakimjanov, E. Koelink, M. de Leon, E. Macias-Virgos, A. Medina, C. Moreno, K.-H. Neeb.

Information: Further information and a pre-registration form may be obtained from the Web page of the colloquium: <http://www.dma.uvigo.es/~clieta/index/> or directly from the organizing committee: Organizing Committee, I Colloquium on Lie Theory and Applications, E.T.S.I. Telecomunicaciones, Universidad de Vigo, 36280 Vigo, Spain; e-mail: clieta@dma.uvigo.es.

* 31-August 3 **Third Conference of Balkan Society of Geometers**, Univ. Politehnica of Bucharest, Bucharest, Romania.

Scientific Program: Includes 30-minute lectures and 15-minute papers. Selected papers will be published in BJGA.

Topics: Riemannian geometry, symplectic geometry, submanifolds theory, Chen invariants, harmonic maps, spectral geometry, Finsler-Lagrange-Hamilton geometry, geometry of PDE's, critical point theory and its applications, convexity and optimization on Riemannian manifolds, electromagnetic dynamical systems, numerical integrator of dynamical systems.

Program Committee: M. Anastasiei (Romania), D. Andrica (Romania), P. Antonelli (Canada), Gh. Atanasiu (Romania), D. Blair (USA), N. Blazic (Yugoslavia), W. Boskoff (Romania), K. Buchner (Germany), B. Y. Chen (USA), V. Cuceanu (Romania), J. Dorfmeister (USA), D. Hrimiuc (Canada), S. Ianuş (Romania), L. Nicolescu (Romania), D. Opreş (Romania), D. Papuc

(Romania), Gh. Pitiş (Romania), P. Popescu (Romania), M. Puta (Romania), H. Shimada (Japan), P. Stavrinou (Greece), L. Tamassy (Hungary), K. Trenchevski (Macedonia), I. Vaisman (Israel), L. Vanhecke (Belgium), E. Vassiliou (Greece), L. Verstraelen (Belgium), B. Wegner (Germany).

Deadline: May 15, 2000.

Fee: \$30.

Organizer: C. Udriste, Univ. Politehnica of Bucharest, Department Mathematics I, Splaiul Independentei 313, 77206 Bucharest, Romania; fax: 401-411.53.65; e-mail: udriste@mathem.pub.ro.

August 2000

* 22-24 **The Fifth Iranian Statistics Conference**, Isfahan University of Technology, Isfahan, Iran.

Sponsors: This conference is jointly sponsored by the Iranian Statistical Society.

Program: The program includes invited and contributed talks in the areas of theory and applications of statistics and probability, short introductory sessions on current popular fields in statistics, sessions on promoting statistical culture in the society, and sessions on statistical education.

Support: A number of grants are available to those presenting papers from abroad. The grants will cover local hotel and meal expenses.

Information: Contact Fifth Iranian Statistics Conference, School of Mathematical Sciences, Isfahan Univ. of Technology, Isfahan 84156, Iran; tel: 98 31 8912600; fax: 98 31 8912602; e-mail: ISC5@cc.iut.ac.ir; Web sites: <http://www.iut.ac.ir/math/isc5.htm> or <http://pegasus.cc.ucf.edu/~iss/>.